AD-A073 185 OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON DC F/G 5/1
DEPOT LEVEL REPARABLES: AN ANALYSIS OF CURRENT AND ALTERNATIVE --ETC(U)
AUG 79 R J MOLONEY

UNCLASSIFIED NL

1 OF 4

AD
A073185

LEVEL II

12 B.S.

AD A073185

A Department of Navy Report
on

This document has been approved for public release and sale; its distribution is unlimited.

DEPARTMENT OF THE NAVY · UNITED STATES OF AMERICA

DEPOT LEVEL REPARABLES

DDC RECEIVED AUG 28 1979 C

DDC FILE COPY

AN ANALYSIS OF CURRENT AND ALTERNATIVE METHODS OF FUNDING.

15 AUGUST 1979

79 08 27 011

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

IN REPLY REFER TO

AUG 1 5 1979

From: Chief of Naval Operations
To: Distribution List

Subj: Promulgation of a Department of the Navy Report on Depot Level Reparables - An Analysis of Current and Alternative Methods of Funding

Ref: (a) CNO msg 161354Z May 79 (NOTAL)

Encl: (1) A Department of the Navy Report on Depot Level Reparables - An Analysis of Current and Alternative Methods of Funding

1. The study report attached as enclosure (1) was directed by the Chief of Naval Operations on 30 June 1978. It resulted from a presentation to the CNO which outlined the current problems associated with the funding and management of the procurement and repair of Inventory Control Point (ICP) managed Depot Level Reparables (DLRs).

2. In addition to a review of the current funding process, the study examined three alternative funding/management methods:

a. Funding the procurement and repair of DLRs in a single appropriation.

b. Funding both procurement and repair of DLRs in the same procurement accounts that currently fund the procurement of DLRs.

c. Funding the procurement and repair of DLRs in the stock fund.

3. The study concluded that stock funding is feasible and that it offers significant potential advantages over the current and alternative methods of financing. These advantages include:

a. Improved supply system discipline resulting from the buyer-seller relationship inherent in a stock funded environment vice the current "free-issue" procedure.

b. Improved financial flexibility due to the ability to trade-off procurement and repair during budget execution.

c. Improved material support responsiveness due to the stock fund's ability to respond to emergent requirements.

Subj: Promulgation of a Department of the Navy Report on Depot Level Reparables - An analysis of Current and Alternative Methods of Funding

4. The principal disadvantages identified by the study are:

a. Additional workload to account for those DLRs which are currently issued "free".

b. Loss of the ability to make trade-offs among DLR, airframe, and engine repair funds in the aircraft rework program.

5, After review of the study report within the Navy, the Chief of Naval Operations directed that a prototype program be initiated. As requested by reference (a), the Chief of Naval Material has formed a task group to implement the prototype program to test the stock funding of non-aviation DLRs which are managed by the Navy Ships Parts Control Center in Mechanicsburg, Pennsylvania. This prototype program is planned to commence during fiscal year 1981.

6. Enclosure (1) is forwarded.

Holcomb

Distribution:

SNDL Part 1

21A	Fleet Commanders in Chief
22	Fleet Commanders
23	Force Commanders
24	Type Commanders

SNDL Part 2

A1	SECNAV
A2A	OPA only
A3	CNO
A4A	CHNAVMAT
A6	CMC
B2	JCS (J-4 only)
B3	NDU, AFSC

(Distribution continued on next page)

Subj: Promulgation of a Department of the Navy Report on Depot Level Reparables - An Analysis of Current and Alternative Methods of Funding

Distribution (con'd)

B5	U.S. Coast Guard (Headquarters only)
C4K	Project Managers
FF38	USNA
FF44	NAVWARCOL
FKA1	SYSCOMS
FKM9	NSC
FKM13	SPCC
FLM15	ASO BRASO
FKM17	FLTMATSUPPO
FKM20	NAVILCO
FKP1B	WPNSTA
FKP1G	NAVSHIPWPNSYSENGSTA
FKP7	SHIPYARD
FKP13	NAVSEC
FKR13	NAVAIREWORKFAC
FR1	CNAVRES
FT1	CNET
FT2	CNATRA
FT5	CNTECHTRA
FT73	NAVPGSCOL

Defense Documentation Center (12 copies)
Defense Logistics Studies Information Exchange (2 copies)
Center for Naval Analyses (5 copies)

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER

~~RJM-01~~

2. GOVT ACCESSION NO.

3. RECIPIENT'S CATALOG NUMBER

4. TITLE (and Subtitle)

6 Depot Level Reparables: An Analysis of Current and Alternative Methods of Funding.

5. TYPE OF REPORT & PERIOD COVERED

9 Final rept.

6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s)

10 R.J. Moloney, CNO Project Officer
NAVMAT 01

8. CONTRACT OR GRANT NUMBER(s)

9. PERFORMING ORGANIZATION NAME AND ADDRESS

Chief of Naval Operations
Navy Department
Washington, DC 20350

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS

11. CONTROLLING OFFICE NAME AND ADDRESS

Chief of Naval Operations
Navy Department
Washington, DC 20350

12. REPORT DATE

11 15 August 1979

13. NUMBER OF PAGES

295

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)

12 327p.

15. SECURITY CLASS. (of this report)

Unclassified

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for Public Release; Distribution Unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

Approved for Public Release; Distribution Unlimited

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Depot Level Reparables; Stock Fund; Reparables Management; Financial Management of Reparables; Fleet; SYSCOMS; Budget Realignment

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The objective of the study was to evaluate the efficacy of alternative Depot Level Reparables (DLR) funding mechanisms. An alternative investigated was the combining of the funding for both new procurement and repair of DLRs in one appropriation.

A second alternative envisioned the capitalization into the stock fund of existing DLRs with subsequent new procurement and repair of DLRs being → over

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

S/N 0102-LF-014-6601

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

264 850

LB

Continuation of Block 20

funded by the stock fund.

The study concludes that the stock fund is the preferred mechanism for financing the procurement and depot level repair of DLRs for the following reasons:

- Improved supply system discipline resulting from the buyer-seller relationship inherent in a stock funded environment vice the current "free-issue" procedure,

- Improved financial flexibility due to the ability to trade-off procurement and repair during budget execution,

- Improved budget forecasting due to shorter stock fund budget leadtimes, and

- Improved material support responsiveness due to the stock fund's ability to respond to emergent requirement without the need for reprogramming action.

Although the study concludes that the stock fund is the preferred financing mechanism, ADP procedural and financial management change problems must be overcome before the concept can be implemented. Accordingly, the study recommends a prototype implementation for non-aviation DLRs managed by the Navy Ships Parts Control Center in Mechanicsburg, Pennsylvania.

TABLE OF CONTENTS

CHAPTER 1

EXECUTIVE SUMMARY

I. PURPOSE

This study was directed as the result of a presentation to the Chief of Naval Operations on 3 May 1978 which outlined the current problems in funding and management of the procurement and repair of Inventory Control Point (ICP) managed Depot Level Reparables (DLRs) and summarized the potential advantages and disadvantages of stock funding DLRs. The study included examination of the current system, stock funding DLRs, and an alternative of funding procurement and repair within a single appropriation.

In addition to the Navy's desire to evaluate alternative DLR funding mechanisms, the study was also directed to develop a formal Navy position on stock funding DLRs in response to official OSD and GAO inquiries.

II. SUMMARY OF ALTERNATIVES

A. Funding the Procurement and Repair of Depot Level Reparables in a Single Appropriation

The principal feature of this alternative is the combining of the funding for both new procurement and repair of DLRs in a single appropriation. This conceptual change, while feasible in any newly created appropriation, is not recommended. A variation of this alternative, however, which

would be accomplished within the existing procurement appropriations (Aircraft Procurement, Navy; Weapons Procurement, Navy; Other Procurement, Navy; and Procurement, Marine Corps) currently funding the new procurement of DLRs offers significant improvement to the current system. Funding would be subdivided into two separate line items in each appropriation. One line item would fund new DLRs (first time "Initial" procurements) and the other line item would fund replenishment spares and the repair of existing DLRs.

B. Funding the Procurement and Repair of Depot Level Reparables in the Stock Fund

This alternative would require the transfer of existing DLRs into the stock fund with subsequent new procurement and repair of DLRs being funded by the stock fund. As a working capital fund, all costs incurred by the stock fund would be recovered by selling DLRs to the customer/user vice the current system of issuing DLRs without charging customer funds. Further, establishment of such a buyer-seller relationship means that the stock fund must also provide credit to a requisitioner who wants to exchange a Not-Ready-for-Issue (NRFI) DLR for a Ready-for-Issue (RFI) DLR.

The two requirements would be accomplished as follows:

- A two-price system would be established whereby a customer without an NRFI unit to exchange would be charged the full price for an RFI unit while the customer who turned in an NRFI unit when he requisitioned an RFI unit would be charged a lower "Net Price" which would essentially represent the cost of repairing the unit.

- To both prices would be added a surcharge, i.e., the costs incurred by the stock fund which cannot be recovered by direct sale to customers (inventory losses, the investment in system assets not recovered because of weapon system phase out, transportation costs, etc.).

- A funding realignment in the budget would be made to recognize the increased costs to customer accounts occasioned by this transfer. Similarly, reductions would be made to those procurement and repair accounts which would no longer have DLR funding responsibilities.

III. CONCLUSION

The Study Director concluded that the stock fund is the preferred mechanism for financing the procurement and depot level repair of DLRs for the following reasons:

- Improved financial flexibility due to the ability to trade-off procurement and repair during budget execution.

- Improved material support responsiveness due to the stock fund managers ability to respond to emergent requirements without the need for reprogramming action.

- Improved supply system discipline resulting from the buyer-seller relationship inherent in a stock funded environment vice the current "free-issue" procedure.

- Improved budget forecasting due to shorter stock fund budget leadtimes.

IV. RECOMMENDATION

Although the stock fund is the preferred financing mechanism, there are several problems which must be overcome before the concept can be implemented. These include significant ADP, procedural and financial management changes. A sizeable training effort would also be necessary. Additionally, there are valid questions concerning Fleet financial workload impact. Because of these considerations a prototype implementation is recommended for DLRs managed by the Navy Ships Parts Control Center in Mechanicsburg, Pa. This prototype would provide a controlled environment in which to evaluate concepts, systems, procedures and fleet workload.

For Marine Corps managed DLRs, the Marine Corps appears to be well served by the current system of spares financial management. The current management organization is highly concentrated and centralized within both the HQMC and the IPC. After consideration of the relative merits of the competing alternatives, the current system provides the Marine Corps with a viable management organization and efficient financial arrangement which effectively support its current

needs. Its retention is endorsed, particularly if refinement could be made which would more fully accommodate mission based budgeting.

CHAPTER 2

INTRODUCTION

I. BACKGROUND

Funding the procurement and repair of secondary item Depot Level Reparables (DLRs) in the Stock Fund has recently received increased visibility and attention. This interest stems from an awareness that the concept offers the possibility of greater management flexibility and efficiency than that which is available in the appropriations process for managing the spares program. Interest in stock funding DLRs is also being expressed by activities external to the Navy. The General Accounting Office has requested that the Navy explain why Type Commanders have not been given the same financial management responsibility for appropriation funded spares as they now have for stock funded items. Additionally, the Office of the Secretary of Defense (OSD) was actively reviewing a proposal to direct all Services to study the feasibility of this concept. In response to this interest, a presentation was given to the CNO Executive Board (CEB) on 3 May 1978 which proposed that a Study Group be established to study the feasibility of stock funding DLRs in order to provide a basis for a Department of the Navy position.

Following the presentation to the CEB, the Vice Chief of Naval Operations directed that the subject be studied and

analyzed by a Study Group under the overall guidance of an appropriate Advisory Committee, with the objective of determining the cost effectiveness of financing the procurement and repair of depot level reparables in the stock fund. Subsequent to this decision, OSD has also directed such a study (Appendix A).

II. SCOPE OF THE STUDY

In accordance with the Study Directive (Appendix B) and the Study Plan (Appendix C), the scope of the study includes the evaluation of: (1) the current system for funding Inventory Control Point (ICP) managed secondary item DLRs; (2) an alternative for funding the procurement and repair of DLRs in a single appropriation; and, (3) an alternative for funding the procurement and repair of DLRs in the Navy and Marine Corps Stock Funds. The Study Directive prescribed the following assumptions necessary to the scope of the study:

-- That current regulations governing the stock funds would remain in effect.

-- That DLR procurement and repair resources programmed in the year of implementation would be available for transfer to customer accounts.

-- That manpower resources programmed for financial management of DLRs would be available for redistribution.

-- That a phased implementation of the concept would be feasible.

III. PRESENT FUNDING PROCEDURES FOR DLRs

Before describing the alternatives developed in the study, the following is a brief, general description of the current system for funding the $1.3 billion required for the procurement and repair of DLRs, the operating procedures for the stock funds, and the customer procedures for requisitioning DLRs.

Funds for procurement of DLRs are programmed during the POM and budget submissions into the various procurement accounts of the Navy and Marine Corps in a manner similar to the programming of all other procurement programs. During budget execution these funds are managed by the three hardware systems commands (Naval Air Systems Command, Naval Sea Systems Command, and Naval Electronic Systems Command), the Strategic Systems Project Office (SSPO), and Headquarters Marine Corps (HQMC).

For DLR repair, funds are requested in the same manner as procurement but are included in the Operation and Maintenance (O&M) accounts. The O&M funds are also managed by the three systems commands, SSPO and HQMC.

In contrast to the DLR procurement and repair funding process, the stock funds operate as a revolving capital fund and are considered in the POM and budget process only for unfunded requirements and War Reserve material. The stock funds initiate the procurement of items with approved

obligation authority vice appropriated funds. The cash to pay contractors, upon delivery of the items, is generated by sales of material to customers. The cash levels of the stock funds are prescribed by Congress, the Office of Management and Budget (OMB) or the Office of the Secretary of Defense. Since the stock funds are revolving funds and generate cash from sales to customers, all costs experienced by the fund must be recovered either by sales or by a surcharge on each issue to pay for supply system pipeline stock, stock losses, and transportation costs. Conversely, both additional cash and/or obligation authority can be obtained, if justified, from OMB/OSD at any time regardless of the appropriation budget cycle. Approval of a cash transfer to augment a stock fund, however, is contingent upon the funds being available in one of the other OSD managed stock funds.

Currently, the customer can requisition a DLR and the DLR is issued at no charge to the requisitioner. Alternatively, customers requisitioning items procured by the stock funds must cite their operating funds and subsequently are billed for the material at the time the material is issued. In the current system for requisitioning DLRs, Navy customers must turn in a repairable carcass unless the requisition is for an initial issue or the DLR carcass is lost and the user has no carcass to return. In the Marine Corps, customers identify unserviceable DLRs to the ICP who then directs return to a

depot repair site if a system need exists. For the Aviation Supply Office and Marine Corps DLRs, the carcass return rate is over 95%, while for the Ships Parts Control Center DLRs the return rate is 89%. Customers participate in the POM and budget process to obtain the operating funds from the O&M appropriations which are used to buy stock funded items.

Appendix D provides additional detail on the present system for funding the procurement of DLRs, the depot repair of DLRs, stock fund operations, and customer procedures.

IV. METHOD OF ANALYSIS

After appropriate research, the current system for funding ICP managed DLRs within the Department of the Navy was documented as a baseline (Appendix D). Then, the way in which these DLRs would be funded in both the stock fund and single appropriation alternatives was analyzed, determined and described by the Study Group. As expected, a number of options required study and evaluation under each alternative. The details of these investigations are documented in the Appendices and, for more minor aspects, in working files. Additionally, analyses of areas such as manpower requirements, maintenance management and the impact on customer funding were completed.

Upon completion of these tasks, the baseline (current) system and each alternative was analytically compared against several functional criteria. Finally, these specific

analyses, as well as a wide range of other considerations, were evaluated, comparing the baseline and each alternative to arrive at a recommendation.

The documentation and analyses were developed from research of existing studies, data, and reference material available from both Departmental and external sources. In addition, interviews, discussions and briefings involving knowledgeable Navy and Marine Corps personnel representing several commands were conducted, including visits to fleet staffs and units, and ICP facilities.

V. SUMMARY

The following chapters describe the:

-- Recommended procedures for combining the procurement and repair of DLRs in a new appropriation and within the existing procurement appropriations.

-- Recommended procedures for stock funding the procurement and repair of DLRs.

-- Analysis of manpower requirements for stock funding DLRs.

-- Analysis of these alternatives and the current baseline system.

-- Evaluation and Recommendations.

CHAPTER 3

FUNDING THE PROCUREMENT AND REPAIR OF DEPOT LEVEL REPARABLES IN A SINGLE APPROPRIATION

I. INTRODUCTION

An alternative tasking of the Study Directive was to develop the most effective appropriation structure for combining both procurement and repair of spare Depot Level Reparables (DLRs) into a single appropriation; and, to provide an evaluation of this structure in the context of improving DLR material availability. The term "Single Appropriation" includes both the option of establishing a new appropriation which includes all spares procurement and repair funds and the option of combining procurement and repair within existing procurement appropriations. This Chapter of the report describes an alternative appropriation structure that would provide increased flexibility in DLR budget formulation and execution to make trade-off decisions between the DLRs being procured or between procurement and repair of Not-Ready-For-Issue (NRFI) carcasses.

II. CURRENT BUDGET STRUCTURE

The interdependence of the repair and procurement functions in DLR management has a substantial impact on DLR availability. Ready-For-Issue (RFI) DLRs can be acquired through two sources. The first being the manufacture of new

units; and, the second, the repair of NRFI units returned from the customer. Under present procedures, the funds used for these two types of production are budgeted and funded through separate channels. The funds required for procurement of new items are included in several procurement appropriation budgets while the repair funds are included in operating budgets.

The requirements included in procurement budgets are determined on the basis that new procurement is forecast only for those items where insufficient RFI and repairable NRFI assets are available to satisfy all requirements within the forecast period. This approach assumes that all necessary repairs can, and will, be accomplished. Therefore, the current procurement budget procedures assume full funding of the repair budget. This assumption becomes critical when the repair budget is not fully funded, since the flexibility does not exist that would allow procurement funds to be used for repair except through reprogramming approval of the appropriate Congressional Committees.

A. Procurement of DLRs

The procurement of DLRs is funded in the Shipbuilding and Conversion, Navy (SCN); Aircraft Procurement, Navy (APN); Weapons Procurement, Navy (WPN); Other Procurement, Navy (OPN) and Procurement, Marine Corps (PMC) appropriations. These appropriations are subdivided into budget activities which are further segmented into "P-1" line items.

It is at the P-1 line item level that budgetary control of the appropriations is exercised. The current budget structure for the procurement of DLRs and the amount budgeted for spares and repair parts in the FY 1980 budget submission to OSD/OMB is shown in Exhibit 3-1. In all the procurement appropriations, except APN, P-1 line items for the procurement of DLRs are included in the budget activity of the end item being procured. The funds for the procurement of DLRs in APN are included in one budget activity with one P-1 line item. DLRs funded in SCN are included in the P-1 line item for each ship type. Excluding SCN, there are nine different P-1 line items for the procurement of DLRs in the Navy and six different P-1 line items in the Marine Corps.

Under the end cost funding concept, the SCN appropriation is responsible for funding the total cost of new ships and conversion of old ships including initial outfitting. SCN funds the initial outfitting either by procurement of new DLRs (not in supply system) or reimbursing the OPN and WPN appropriations for items available in the supply system. The funds received by WPN and OPN in payment for these items are used as an offset against future budget requests. Except for items procured by contract, therefore, SCN functions in a customer mode rather than a material management mode. Accordingly, SCN was excluded from the Single Appropriation options discussed in this Chapter because its "customer" appropriation responsibilities would remain unchanged.

EXHIBIT 3-1

CURRENT APPROPRIATION STRUCTURE FOR PROCUREMENT OF SPARES AND REPAIR PARTS

I. Shipbuilding and Conversion, Navy, (SCN) Appropriation

Under the end cost policy of funding new and converted ships, all SCN funded DLRs are included in the same line item as the funding for the ship. These DLRs are for initial outfitting only. No replenishment spares DLRs are funded in SCN.

II. Aircraft Procurement, Navy, (APN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Combat Aircraft	
2. Airlift Aircraft	
3. Trainer Aircraft	
4. Other Aircraft	
5. Modification of Aircraft	
6. Aircraft Spares and Repair Parts (Spares and Repair Parts)	$ 624.1
7. Aircraft Support Equipment and Facilities	
SPARES TOTAL	$ 624.1

III. Weapons Procurement, Navy, (WPN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ballistics Missiles (Spares and Repair Parts)	$ 2.3
2. Other Missiles (Spares and Repair Parts)	$ 24.4
3. Torpedoes and Related Equipment (Spares and Repair Parts)	$ 12.0
4. Other Weapons (Spares and Repair Parts)	$ 24.4
SPARES TOTAL	$ 63.1

EXHIBIT 3-1 (Cont'd)

IV. Other Procurement, Navy, (OPN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ship Support Equipment (Spares and Repair Parts)	$ 90.6
2. Communications and Electronics Equipment (Spares and Repair Parts)	$ 102.3
3. Aviation Support Equipment (Spares and Repair Parts)	$ 7.9
4. Ordnance Support Equipment (Spares and Repair Parts)	$ 74.0
5. Civil Engineering Support Equipment	
6. Supply Support Equipment	
7. Personnel and Communication Support Equipment	
SPARES TOTAL	$ 274.8

V. Procurement, Marine Corps, (PMC) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ammunition	
2. Weapons and Combat Vehicles (Spares and Repair Parts)	$ 2.5
3. Guided Missiles (Spares and Repair Parts)	$ .7
4. Communications and Electronics (Spares and Repair Parts)	$ 1.4
(Spares and Repair Parts (non telcom))	$ 6.2
5. Support Vehicles (Spares and Repair Parts)	$ 2.0
6. Engineer and Other Equipment (Spares and Repair Parts)	$ 1.2
SPARES TOTAL	$ 14.0

B. Repair of DLRs

Funds for the repair of DLRs are budgeted in the Operation and Maintenance, Navy (O&MN), and Operation and Maintenance, Marine Corps (O&MMC), appropriations. Within the Navy, the repair funds are identified in the Operation and Maintenance budgets of the three Hardware System Commands (Naval Air Systems Command, Naval Electronics Systems Command, and Naval Sea Systems Command). The Marine Corps repair funds are identified in one line of the Operation and Maintenance appropriation. The FY 1980 budget activity structure and the amount budgeted for repair in the budget submission to OSD/OMB is shown in Exhibit 3-2.

C. Management Structure

In total there are nine different procurement line items and three sources of repair funds in the Navy for the procurement and repair of DLRs, and six procurement and one repair source in the Marine Corps. These independent sources of Navy funding are illustrated in Exhibit 3-3. This Exhibit shows that within the Navy the funding is not only split between procurement and O&M appropriations, but, additionally, the funds are divided by material management cognizance symbols (COG) between budget activities within an appropriation. An example of split funding responsibility is 4A and 2R COGs which are funded from two procurement appropriations and the Operation and Maintenance, Navy appropriation -- three different appropriations.

EXHIBIT 3-2

CURRENT O&M APPROPRIATION STRUCTURE

FOR REPAIR OF DLRS

I. Operations and Maintenance, Navy, (O&MN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Strategic Forces	
Naval Electronics Systems Command (Inventory Control Point Component Rework)	$ .3
2. General Purpose Forces	
3. Intelligence and Communications	
Naval Electronics System Command (Inventory Control Point Component Rework)	$ 1.0
7. Central Supply and Maintenance	
Naval Air Systems Command (Component Rework)	$443.2
Naval Sea Systems Command (Inventory Control Point Component Rework)	$ 87.0
Naval Electronics System Command (Inventory Control Point Component Rework)	$ 20.1
8. Training, Medical and Other General Personnel Activities	
9. Administration and Associated Activities	
10. Support of Other Nations	
COMPONENT REWORK TOTAL	$551.6

II. Operations and Maintenance, Marine Corps, (O&MMC) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
2. General Purpose Forces	
7. Central Supply and Maintenance (Component Rework)	$ 10.3
8. Training, Medical and Other General Personnel Activities	
9. Administration and Associated Activities	
COMPONENT REWORK TOTAL	$ 10.3

EXHIBIT 3-3

SPARES PROCUREMENT AND REPAIR FUNDING
NAVY FY-80 BUDGET

($ Millions)

				PROCUREMENT			O&M	
APPN/BA	HSC	ICP	COG	INTERIM	INITIAL	REPLEN.	REPAIR	TOTAL
OPN-1	SEA	SPCC	2H		17.2	73.4	39.6	130.2
OPN-2	ELEX	SPCC	4G		11.5	43.9	21.4	76.8
	ELEX		No COG	17.1				17.1
	SEA	SPCC	2H		11.2			11.2
	SEA	SPCC	4N		1.0			1.0
	SEA*		No COG	17.6				17.6
OPN-3	AIR	SPCC	4A		1.4			1.4
	AIR	ASO	4R		.5	.8	.4	1.7
	AIR		No COG	5.2				5.2
OPN-4	SEA	SPCC	4N		8.0	37.6	33.1	78.7
	SEA	SPCC	8H			1.0		1.0
	SEA*		No COG	13.5				13.5
	SSPO		P.COGs		4.2	4.5		8.7
	SSPO	SPCC	6A/H/X			5.2		5.2
OPN TOTAL				53.4	55.0	166.4	94.5	369.3
WPN-1	SSPO		2P/6P		1.3	1.0		2.3
WPN-2	AIR	ASO	2R		.6			.6
	AIR	SPCC	4E			2.0		2.0
	AIR	SPCC	6E		2.4	.2	1.5	4.1
	AIR		No COG	12.2				12.2
	SEA	SPCC	2U			.3	1.5	1.8
	SEA		No COG	6.7				6.7
WPN-3	SEA	SPCC	4U		.9	4.0	9.7	14.6
	SEA*		No COG	7.1				7.1
WPN-4	SEA	SPCC	6U		.1	1.2	3.1	4.4
	SEA		No COG	23.1				23.1
WPN TOTAL				49.1	5.3	8.7	15.8	78.9
APN-6	AIR	ASO	2R/8R		54.0	328.5	439.0	821.5
	AIR	SPCC	4A		.7	4.3	2.3	7.3
	AIR		No COG	136.3		12.7		149.0
	AIR		4V		87.6			87.6
APN TOTAL				136.3	142.3	345.5	441.3	1,065.4
NAVY GRAND TOTAL				238.8	202.6	520.6	551.6	1,513.6

*Includes PM-2 and PM-4

III. CHARACTERISTICS OF PRESENT FUNDING STRUCTURE

The present method of funding the procurement and repair of DLRs in different appropriations, and several different places within an appropriation, has many features which inhibit budgeting and budget execution. In balancing the resources to achieve optimum material availability, each appropriation involved has specialized characteristics and procedures which have advantages and disadvantages that warrant discussion.

A. Management Flexibility

Definitions of funding responsibility classify the cost of the labor to repair material (except under special circumstances) as an "expense" cost which currently must be funded in the Operation and Maintenance appropriations. Conversely, the procurement of DLR spares is budgeted in procurement appropriations as an "investment" cost. One of the primary disadvantages of this requirement is the inability to take advantage of good business trade-offs during budget execution between repair and new procurement because of the necessity to budget these costs in different appropriations. The current budget procedures place primary emphasis on supporting requirements in each specific appropriation. Although considerable effort is expended to achieve a balanced budget across all appropriations for DLR procurement and repair requirements, the different decision level review processes

within Navy, OSD/OMB and the Congress make the task of achieving coordinated, balanced spares support difficult. This inability to follow a cost effective course in providing balanced spares support is costly both in terms of dollars as well as Fleet support.

B. Congressional Reprogramming Controls

It is recognized that Congress imposes restrictions on individual appropriations and programs and depends on these restrictions and reprogramming controls to exercise authority and direction in the support that it chooses to provide for each area of the budget. Restrictions imposed take the form of either specific language in the Appropriation Act defining the purposes for which the Appropriation was made or specific restrictions imposed by the Committees as a result of mark-up of the Appropriation Bill. These restrictions are included in Committee reports. If, for example, the House Appropriations Committee were to take specific issue with some aspect of the spares programs (including a budget cut), these restrictions would be complied with by the Services regardless of the system being used to manage spares. In the budget requests for spares procurement and repair, however, Congress has been most supportive in appropriating funds which it considers are needed to improve overall weapon system readiness.

While the reprogramming controls are not questioned, they are a separate issue. These controls are

general in nature; no reprogramming between appropriations and no more than $5 million can be added to each P-1 line item in procurement accounts without Congressional approval regardless of the size (dollar value) of the line item. In some spares line items $5 million represents a small percentage of the total dollars in the line item. The time required to obtain Congressional approval, and the undesirability of requesting approval for anything more than the most urgent problems, create a situation where the manager may decide to "live" with the funds available to the detriment of spares support of the weapon system affected.

Although the O&M appropriations are more flexible ($5 million between budget activities vice line items), O&M basically funds operating costs which are very difficult to reduce in order to provide funds for emergent component rework requirements.

Considering the overall spares support program (procurement and repair), reprogramming controls do inhibit optimum financial management flexibility to manage the spares program. Improvement in spares management flexibility could be achieved if the number of Navy P-1 line items were reduced and repair funds included in the procurement appropriations.

C. Budget Preparation, Justification and Execution

The nine P-1 line items for procurement of Navy DLR spares are included in three appropriations (APN, WPN, and

OPN). In the budget formulation process these P-1 line item requirements must be supported by budget data containing the required written justification and budget exhibits. The time available for preparing these budget backup packages is invariably short. This results in peak workload situations, particularly at the Inventory Control Point (ICP) level where the largest portion of the detail backup must be prepared. This budget formulation workload in itself presents problems to the ICPs in preparing well documented, coordinated budget submissions.

A major constraint in the current system is the number of budget projects that must be managed during budget execution by the Ships Parts Control Center (SPCC) ICP and the Aviation Supply Office (ASO) ICP from the funds appropriated by Congress under nine P-1 line items. For example, in FY 1978 SPCC had 203 budget projects for repairable spares. ASO had 19 budget projects issued from the one P-1 line item in APN. Although the use of funds as appropriated is only restricted at the P-1 line item level, there are a number of internal management procedures which produce funding restrictions resulting in the disproportionate number of funding documents issued to the ICPs. The first funding restriction is usually established based on the several material management cognizance (COG) symbols for the material managed by the ICP. That is, funds are allotted by COG and obligation authority is limited to

procurement of DLRs within the COG specified. Secondly, obligation authority is restricted within the COG according to functional element; i.e., the funding document will restrict the use of funds to initial procurement or replenishment procurement. In addition, funding documents often further restrict the use of funds to a particular weapon or equipment. These procedures are management restrictions which require justification by the ICP for every funding change between budget projects and thus inhibit the ICPs from effectively balancing the procurement of all requirements. A substantial reduction in these restrictions is required if a balanced program is to be executed effectively. The additional program flexibility discussed above under Congressional Reprogramming Controls would be of little benefit if the internal management controls are not reduced and made more flexible.

D. Different Periods of Appropriation Availability

All procurement appropriations (except SCN) are available for obligations for a period of three years. The Operation and Maintenance appropriations are considered expense appropriations and are only available for obligation for one year. This situation adds to the difficulty in effecting coordination and balancing of resources available for repair and those available for procurement to achieve the most cost effective spares support.

IV. APPROPRIATION STRUCTURE OPTIONS REVIEWED

The analysis of the single appropriation alternative considered several P-1 line item structure options that combine both procurement and repair funds in the same appropriation. This analysis considered combining procurement and repair in existing procurement appropriations as well as the establishment of a new appropriation. Although several P-1 structure options were considered, only four were selected for inclusion in the report.

A. Options Considered for Structuring P-1 Line Items in a New Appropriation and in the Existing Appropriations

The four P-1 line item options included in the report consist of an appropriation structure which orients the P-1 line items to achieve emphasis on the following different methods of displaying spares requirements:

- -- By Weapon Mission
- -- By Aircraft Type Model/Ship Class
- -- By Weapon System Equipment
- -- By Function

1. Weapon Mission

Under the Weapon Mission structure, separate budget activities were established for Aviation Spares and Ship Spares. The P-1 structure within these budget activities would be based upon the mission of the weapon system. Thus, for Aviation Spares there would be 13 P-1 line items; e.g.,

one each for Fighter, Attack, Early Warning, Transport, etc. The Ship Spares budget activity would be displayed in 15 P-1 line items; e.g., Carrier, MAG, Surface Combatant, Patrol, Mine Warfare, Submarines, etc.

2. Aircraft Type Model/Ship Class

The Aircraft Type Model/Ship Class option would also include the same two budget activities as for the Weapon Mission option. The P-1 structure would identify Aviation Spares to each type/model of aircraft and Ship Spares to each ship type. This structure would result in 49 P-1 line items for Aviation Spares; e.g., F-14, A-7, H-46, S-3, P-3, etc. Ship Spares would have 40 P-1 line items; e.g., CV, CG, FFG, DD, SSN, etc.

3. Weapon System Equipment

Using the same two budget activities, the Weapon System Equipment P-1 structure was based on the principal types of equipment used in aircraft and ships. Thus for Aviation Spares there would be six P-1 line items; i.e., airframe, engine, support equipment, avionics, dynamics and other. For Ship Spares, the number of P-1 line items could not be fully identified. Those considered were radar, sonar, fire control, launchers, guns, communications, and propulsion. It is estimated that the total number of Ship Spares P-1 line items under this option would be greater than the Weapon Mission or Ship Class P-1 variations.

4. Function

This option recognizes that there are two principal functional responsibilities for the procurement and repair of spares. One rests with the HSCs for the development of spares support for new weapon systems and the other with the ICPs for management of replenishment support for existing weapons systems. Thus for a new appropriation there would be the same two budget activities with two P-1 line items in each budget activity; one for new spares and one for replenishment spares and component rework. For the alternative using the current procurement appropriations, a new budget activity would be established in WPN and OPN containing the two P-1 line items. For APN, the existing budget activity would include the two P-1 line items instead of the one existing P-1 line item.

B. Analysis of Options

The first three options are basically oriented toward the concept of weapon system budgeting and range from the mission budget approach to individual end items of equipment. The primary problem encountered in all three of these options was the common use of many DLRs in different weapon systems and end items of equipment. Simply stated, this problem would result in the same DLR being budgeted in two or more P-1 line items depending upon the degree of commonality.

No solution to this problem could be identified which convinced the study group that an acceptable P-1 line item structure could be developed for the entire spares program.

The advantages sought by the study group in constructing and analyzing these options were to: (1) achieve a mission oriented budget consistent with Congressional interest in mission budgeting; (2) identify spares costs to aircraft type and ship class; or, (3) if unable to achieve these objectives, identify costs to principal end item equipments. The disadvantages encountered, however, far outweighed the perceived advantages.

In addition to the commonality problem, these three options were considered to be inadvisable because of the inability to refine budget requirements to these levels within an acceptable degree of accuracy. Considerable progress has been made in estimating aircraft spares requirements at the aircraft type level, including resolution of the commonality problem. However, the process is complicated and requires percentage distribution of costs to aircraft type based on prior usage data. There are significant difficulties in this method if budgets were required to be prepared at the aircraft type P-1 line item level. In the ship area of the spares program this capability does not exist.

An increase in the workload to prepare budgets using these three options would result, although probably not in direct proportion to the number of additional line items.

In view of the above, it is unlikely that executing a budget based on these options (with an expanded P-1 line item structure) would provide adequate flexibility. The necessity to comply with current reprogramming controls would require an expanded management control process that would be detrimental to executing the overall spares program in a cost effective, efficient manner.

Although the concept of weapon system budgeting may be appealing, the capability does not exist that would make it a feasible alternative.

The functional option approach would provide both the desired flexibility and overcome the problems identified above. Even though the dollar amount budgeted in one P-1 line item (replenishment spares and component rework for aircraft) would be very large, the current P-1 line item is large and has not been questioned during budget reviews. The primary disadvantage of the functional approach is that it may not be acceptable as a P-1 line item structure for a new appropriation.

C. New Appropriation

Conceptually, the establishment of a new appropriation including both spares procurement and repair would appear to be desirable. Inherent in this concept, however, is the assumption that a P-1 line item structure can be devised which will provide both an adequate display of requirements and permit sufficient reprogramming flexibility during program execution to adjust to changing requirements.

1. Display of Requirements

A new appropriation would contain requirements for spares procurement and repair amounting to approximately 1.5 billion dollars. It is assumed that such an appropriation would not be acceptable to the Congress if structured with no more P-1 line item identity than that discussed under the functional option. An acceptable P-1 line item structure would require the display of requirements to the level of the Aircraft Type Model/Ship Class option as a minimum. As stated above, the primary difficulty in devising a P-1 line item structure to this depth is that many DLRs are used in two or more ship classes or aircraft types.

2. Flexibility to Execute the Spares Program

Spares requirements must be budgeted in procurement appropriations a minimum of 18 months, and frequently longer, before funds are available and contracts can be signed. Execution of the total program takes place over an even longer period of at least another 18 months. Estimating spares requirements is not so precise that it can be done at the ship class, aircraft type or equipment level to a degree that would ensure adequate flexibility to respond to changes in requirements over this period, even though the total funds for the spares program may be adequate. An expanded P-1 line item structure, sufficient to justify a new appropriation, most probably would result in reduced flexibility, even with a five

million dollar threshold on each line item. This threshold would not add flexibility if the requirement to reprogram funds into an individual line item exceeded five million dollars. Even though the budgeting of spares procurement and repair in one appropriation may be desirable, the program must be executable if the objective of balancing requirements is to be achieved.

Based on the above analysis of the options and the discussion of a new appropriation, the study group selected the alternative of using the functional option approach within the existing appropriations.

V. APPROPRIATION STRUCTURE FOR FUNCTIONAL OPTION

In analyzing the process for the formulation and execution of budgets for the procurement and repair of DLRs, two principal responsibilities are evident. The responsibility of the Hardware Systems Commands (HSCs) to develop spares support for new weapon systems and the responsibility of the ICPs to manage the replenishment support for existing weapon systems. These responsibilities fall into two large groupings which form a logical basis for the formation of P-1 line items. The first consists of those requirements which are primarily HSC generated and which are not related to depot level repair. The second includes those requirements which are ICP generated and combine the procurement of replenishment spares and depot level repair funds.

A. General Budget Structure

Using the HSC and ICP requirements determination responsibilities as a basis, the following budget categories for the procurement and repair of DLRs were developed.

1. New Weapon System Spares

Included in this category would be: (1) the spares support during the initial phases of introducing a new weapon system which consists of providing interim support until the technical problems have been resolved; (2) the initial outfitting of the first ships or stations which will operate the system; and, (3) the modification change kits and installation labor to modify the DLRs.

a. Interim Support

Interim support includes the procurement and repair of DLRs to provide support from first delivery of a new end item until the Material Support Date (MSD). On this date the Navy and Marine Corps supply systems assume supply support responsibility. Interim spares are managed outside the supply system and are usually funded in the end item contract for the weapon system.

b. Initial Provisioning

The ICPs in coordination with the HSCs formally provision a new weapon system when the design is stable enough to allow the contractor to provide Provisioning Technical Documentation (PTD). PTD is usually bought by the

HSC as part of the end item. During the provisioning process new items are established in the supply system, existing items are reviewed to ensure adequate support for the new system, initial supply system inventories for the new items are procured, and initial outfittings for ships, Marine Air Groups (MAGs), and stations are procured. Initial provisioning includes those new items (and any related modifications) and the initial procurement of outfittings which will be required at sites operating the new weapon system during the period of approximately 12 to 18 months following the MSD.

2. Existing Weapon Systems

The ICPs are responsible for: (1) the spares support of existing weapon systems (including completion of the follow-on outfitting of all sites at which the system will be operated); (2) procurement of replenishment spares; (3) the repair of NRFI items; and, (4) the modification change kits and installation labor to modify the spare DLRs.

a. Follow-on Outfittings

The ICPs would procure the outfitting material for additional sites not supported by the initial provisioning procurements described above.

b. Replenishment Spares and Component Rework

The ICPs are also responsible for the procurement of spares to replace worn out equipment, including

the inventory growth resulting from higher than predicted usage of spares. Under this alternative, the ICPs would also fund the depot level (commercial or organic) repair of DLRs.

c. Modification Kits and Installation Labor

Although modification change kits for spares are usually procured by the ICPs, the responsibility for the design and procurement documentation rests with the HSCs. Since most change kits for spare DLRs are installed during repair, the installation labor to install these kits should be funded with the kits.

B. Proposed Structure for Navy Procurement Appropriations

The existing budget activity and P-1 line item structure within current Navy procurement appropriations was revised to establish a new budget activity in the OPN and WPN appropriations similar to Budget Activity 6 in APN. Within these new budget activities, and Budget Activity 6 of APN, the funding responsibilities listed above are combined into two P-1 line items. One for new weapon systems entitled "New Spares and Repair Parts," and, the second for existing weapon systems entitled "Replenishment Spares and Component Rework." The second line item combines replenishment spares funding (procurement and repair) into one P-1 line item and provides the inventory manager the option of trading-off between procurement and repair costs and between COGs of material.

EXHIBIT 3-4

PROPOSED PROCUREMENT APPROPRIATION STRUCTURE INCLUDING REPAIR FUNDS

I. Shipbuilding and Conversion, Navy, (SCN) Appropriation

No change.

II. Aircraft Procurement, Navy, (APN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Combat Aircraft	
2. Airlift Aircraft	
3. Trainer Aircraft	
4. Other Aircraft	
5. Modification of Aircraft	
6. Aircraft Spares and Component Rework	
(New Spares and Repair Parts)	$ 278.6
(Replenishment Spares and Component Rework)	$ 786.8*
7. Aircraft Support Equipment and Facilities	
SPARES AND COMPONENT REWORK TOTAL	$ 1,065.4

*Includes $441.3 Component Rework Funds

III. Weapons Procurement, Navy, (WPN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ballistic Missiles	
2. Other Missiles	
3. Torpedoes and Related Equipment	
4. Other Weapons	
5. Weapon Spares and Component Rework	
(New Spares and Repair Parts)	$ 54.4
(Replenishment Spares and Component Rework)	$ 24.5*
SPARES AND COMPONENT REWORK TOTAL	$ 78.9

*Includes $15.8 Component Rework Funds

EXHIBIT 3-4 (Cont'd)

IV. Other Procurement, Navy, (OPN) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ship Support Equipment	
2. Communications and Electronics Equipment	
3. Aviation Support Equipment	
4. Ordnance Support Equipment	
5. Civil Engineering Support Equipment	
6. Supply Support Equipment	
7. Personnel and Communication Support Equipment	
8. Equipment Spares and Component Rework	
(New Spares and Repair Parts)	$ 108.4
(Replenishment Spares and Component Rework)	$ 260.9*
SPARES AND COMPONENT REWORK TOTAL	$ 369.3

*Includes $94.5 Component Rework Funds

V. Procurement, Marine Corps, (PMC) Appropriation

Budget Activity	FY 1980 OSD/OMB Submit Minimum Level ($ Millions)
1. Ammunition	
2. Weapons and Combat Vehicles	
(New Spares and Repair Parts)	$ .2
(Replenishment Spares and Component Rework)	$ 4.6
3. Guided Missiles	
(New Spares and Repair Parts)	$ .4
(Replenishment Spares and Component Rework)	$ 1.3
4. Communications and Electronics	
(New Spares and Repair Parts)	$ 1.0
(Replenishment Spares and Component Rework)	$ 1.6
(New Spares and Repair Parts (Non-Telcom))	$ 4.4
(Replenishment Spares and Component Rework (Non-Telcom))	$ 4.8
5. Support Vehicles	
(New Spares and Repair Parts)	$ .4
(Replenishment Spares and Component Rework)	$ 3.7
6. Engineer and Other Equipment	
(New Spares and Repair Parts)	$ .9
(Replenishment Spares and Component Rework)	$ 1.0
SPARES AND COMPONENT REWORK TOTAL	$ 24.3*

*Includes $10.3 Component Rework Funds

This structure allows a greater degree of funding flexibility, within the five million dollar reprogramming limit, than could be achieved if a new budget activity were established. A new budget activity would have two P-1 line items, each of which would be subject to the five million dollar reprogramming limitation. It was concluded that for the PMC appropriation the desired degree of flexibility could be achieved by employing the functional P-1 line item approach within the existing budget activity structure. Therefore, the establishment of a single budget activity for spares is not recommended.

VI. IMPACT OF THE PROPOSED ALTERNATIVE

The combining of DLR repair funding with the associated procurement funds would improve the ICP inventory managers role in the management of DLRs. This change should result in increased opportunity for the ICP inventory managers to enhance the availability of DLRs. Conversely, the combined funding would decrease the HSCs flexibility to fund other requirements.

A. Full Funding of Repair Requirement

Combining procurement and repair funds into a single P-1 line item in each appropriation would allow the full funding of the repair requirement based on the priority of procurement versus repair requirements. The method used today in calculating the replenishment requirement assumes that there

will be full funding of repair, but this usually has not been the case. The change will ensure that repair funds are available so that within the priorities established for spares requirements, balancing of these requirements can be made in the most efficient manner. The granting of this flexibility to the inventory manager should result in better utilization of funds by the ICP during budget execution to achieve improved spares availability with the same amount of funding.

B. Loss of Flexibility

The granting of trade-off flexibility to the inventory manager will cause other managers to lose some of their flexibility. For example, the repair funds for aviation DLRs (2R COG) represent about 48 percent of the Naval Air Systems Command (NAVAIR) aircraft rework program. Thus, NAVAIR will lose the flexibility to use the funds budgeted for component rework for other purposes; e.g., engine repair. Conversely, NAVAIR will not be able to use engine repair or other rework funds to augment component rework.

C. Repair Capability

The extent of an inventory manager's ability to balance the procurement and repair requirements will be limited by the availability of repairable carcasses and depot level repair capacity. There are two types of repair capability -- organic and commercial. The principal organic repair

activities are the Naval Shipyards, Air Rework Facilities, Weapons Stations and Electronic Engineering Activities. The ability of the organic repair activities to respond to an increase in component rework funding is constrained by their physical plant, authorized personnel ceiling, and the priority of other rework effort being performed. The commercial activities are not constrained to the same extent in their ability to respond to changes in workload. Inventory managers, through scheduling conferences with the managers of the organic repair facilities, should endeavor to place the component rework required with these facilities and use commercial activities for any overflow. To the extent that the organic repair facilities are unable to respond to the needs of the inventory manager, the use of commercial sources may increase in order to provide RFI DLRs in the most cost effective manner.

D. Funding of DLR Modification and Configuration Control

The configuration control of the end items and associated DLRs is the responsibility of the appropriate HSC. In general, under the present system, the purchase of modification change kits is funded in procurement accounts and the installation of the kits is funded with O&M funds. However, for installed equipment, the purchase and installation of the change kits is funded in the procurement accounts if the work is accomplished commercially. Both the procurement and O&M

accounts are administered by the HSC having the configuration control responsibility.

With the combining of DLR repair funding with the associated procurement funds, no change would occur in the change kit procurement funding process, for either installed DLRs or spares. Funding of change kit installation in installed equipment would remain as it is under the present system; i.e., in the procurement account if the work is accomplished commercially, and with O&M funds if accomplished organically. For the spare DLRs, the funding of the change kit installation would be provided by the procurement account in which the kits were purchased.

As it is under the present procedures, the various procurement and O&M accounts associated with DLR modifications would be administered by the HSC having configuration control responsibility. From the view point of spare DLR modification management, the function would be simplified in that the procurement and installation of change kits for spares would be budgeted for and funded in the same procurement account.

E. Automatic Data Processing

The computer systems and programs presently in use for the financial, inventory or maintenance management of DLRs would not require any changes as a result of the proposed alternative.

F. Manpower

Since the basic management process will remain unchanged, no increased personnel requirements have been identified. However, since the number of budget backup exhibits prepared would be based on a reduced number of P-1 line items, there would be some reduction in the budget formulation workload. This would benefit SPCC only since there would be no workload reduction at ASO. There may also be some decrease in the personnel requirements at both ICPs as a result of receiving fewer allotments under the single appropriation alternative.

VII. BUDGET FORMULATION/REVIEW

The revised procurement appropriation P-1 line item structure using the functional approach could be implemented with only minor changes to the existing budget formulation and review process which is described in Appendix D.

A. Budget Formulation

The New Spares and Repair Parts P-1 line item requirements would be developed using the same techniques that are currently used in developing these requirements.

The Replenishment Spares and Component Rework P-1 line item requirements could also be developed using the existing procedures and budget exhibits. However, since there is currently a considerable amount of duplication involved both in the data used, and in the preparation of these two budget

packages, a more effective course of action would be to revise the procedures and budget backup exhibits to provide for the simultaneous development of repair requirements.

B. Budget Review

This alternative would result in some minor changes in budget review channels. Replenishment procurement budgets and repair budgets are currently prepared by the ICPs as separate packages and are reviewed through separate channels in OSD, OMB and the Congress. However, they are both based on the same "starting point"; i.e., the semi-annual stratification process. This alternative would result in these requirements being reviewed simultaneously by the existing review channels for procurement appropriations.

VIII. CONCLUSION

After weighing all aspects of the two single appropriation options and the four P-1 line item variations, it was concluded that the utilization of the functional approach under the current appropriation structure is the most feasible. It provides the desired flexibility in budget formulation and execution to allow trade-off decisions to be made between procurement items and also between procurement or repair of available NRFI carcasses. Used properly, this funding flexibility should result in more efficient utilization of resources and provide better material support.

Implementing this proposed alternative to the current system would require OSD/OMB approval to change the expense/investment criteria to permit the funding of repair costs in procurement appropriations. No substantial problem is anticipated in changing the appropriation structure. The Congress would, of course, have to support these changes during mark-up of the Appropriation Bill.

CHAPTER 4

FUNDING THE PROCUREMENT AND REPAIR OF DEPOT LEVEL REPARABLES IN THE NAVY AND MARINE CORPS STOCK FUNDS

I. INTRODUCTION

The primary purpose of the study is to examine the feasibility, cost effectiveness and impact of funding Inventory Control Point (ICP) managed secondary item Depot Level Reparables (DLRs) in the Navy and Marine Corps Stock Funds. This chapter describes the recommended procedures for the most effective implementation of stock funding DLRs. The evaluation of the alternatives and the recommendations are included in Chapter 6.

In arriving at the most effective way to stock fund DLRs, the following major areas affecting headquarters management, supply system management and the impact of stock funding DLRs on Fleet customers received primary attention:

- -- Impact of Additional Workload on Fleet Customers
- -- Organizational Interfaces
- -- Stock Fund Pricing and Credit Policy
- -- Budget Development
- -- Budget Execution

Additionally, specific areas such as the modification and configuration control of DLRs, the changes required in policy guidance and the revisions in computer system financial

programs were considered by the study group in formulating the proposed procedures for stock funding DLRs. Of particular concern to the study group were the significant changes that would be required in spares management at the Headquarters, System Command, and ICP levels and the financial workload imposed on the Fleet customer if high cost DLRs are charged to customer accounts.

II. STOCK FUND METHOD OF OPERATION

The Navy and Marine Corps Stock Funds are revolving working capital funds which are used to finance the procurement of designated categories of consumable secondary items. When these items are delivered, they are held in inventory in the Navy Stock Account (NSA) and the Marine Corps Stock Fund Account (SFA) until requisitioned by a customer. The customer is charged for the cost to obtain the item from a contractor plus an additional amount (surcharge) to offset the overall system inventory costs such as stock losses, obsolescence and transportation. The surcharge, therefore, is used to recover all costs to the stock fund in excess of the cost of obtaining the item from a contractor. The objective of a surcharge is to provide a level of income to the stock fund (over a period of time) equal to the level of cash outflow (over the same period of time) in order to provide for a break-even balance of stock fund cash. It should be noted that the Service surcharge is not applied to material requisitioned by the stock funds from other government agencies.

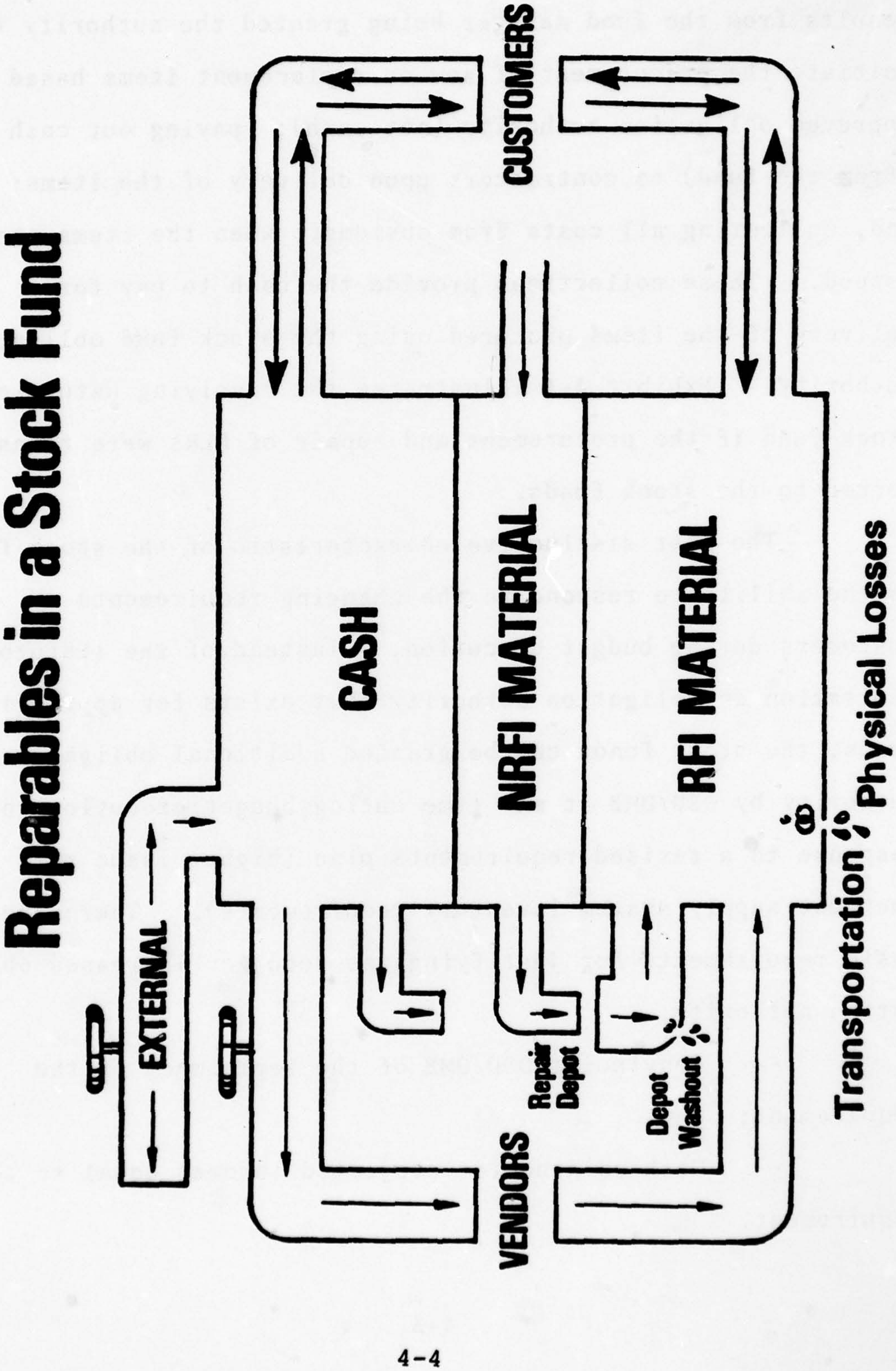
The "revolving" aspect of a working capital fund results from the fund manager being granted the authority to initiate the procurement of new or replacement items based on approved obligation authority (not cash); paying out cash (from the fund) to contractors upon delivery of the items; and, collecting all costs from customers when the items are issued. These collections provide the cash to pay for delivery of the items procured using the stock fund obligation authority. Exhibit 4-1 illustrates the revolving nature of a stock fund if the procurement and repair of DLRs were transferred to the stock funds.

The most distinctive characteristic of the stock funds is the ability to respond to the changing requirements of customers during budget execution. Instead of the statutory limitation on obligation authority that exists for appropriated funds, the stock funds can be granted additional obligation authority by OSD/OMB at any time during budget execution in response to a revised requirements plan (higher issue rate or emergent supply system inventory requirements). There are two basic requirements for justifying the need for increased obligation authority:

-- Convincing OSD/OMB of the legitimacy of the requirement; and,

-- Cash on hand (or projected income) equal to the requirement.

EXHIBIT 4-1


Reparables in a Stock Fund
CUSTOMERS
CASH
NRFI MATERIAL
RFI MATERIAL
EXTERNAL
Repair Depot
Depot Washout
Transportation
Physical Losses
VENDORS

Cash on hand can be increased by OSD/OMB if it is available in one of the other OSD managed funds. If funds (cash) are not available for transfer from one of the other OSD managed stock funds, they can only be obtained through the normal Congressional appropriation process or by Congressional approval of a formal reprogramming request which must cite other currently appropriated funds as a source. Below the OSD/OMB level, the Navy stock fund manager has authority to:

-- Convert commitment authority to obligation authority to the extent that orders are projected which exceed the approved obligation authority.

-- Reprogram obligation authority between the Budget Projects within the stock fund.

Transferring DLRs to the Navy stock fund would substantially expand current stock fund operations. The current FY 1979 obligation authority apportioned by OSD/OMB is $2.7 billion. With the transfer of DLRs, an additional $1.3 billion would be required. Such an increase would undoubtedly focus greater budget review attention on both stock fund budgeting and budget execution procedures. The analysis of stock fund financial data would become more complex because of the added dimension of including repair costs in the stock fund. However, no basic principle or concept of stock funding would be changed to accommodate the financing of DLRs.

III. DLRs CONSIDERED FOR TRANSFER TO THE STOCK FUND

On the date of implementation, all DLRs designated for transfer would come under the inventory management and funding responsibility of the Navy and Marine Corps stock fund managers. This includes all quantities of designated DLRs in the supply system at stock points and on ships which currently perform stock fund stores accounting, including ready supply store and shop store inventories at locations for which the stores accounting activity maintains inventory accountability. DLR receipts subsequent to the transfer date which were procured with prior year appropriated funds would be taken into inventory in the stores account (COG symbol/SAC code) which relates to the funds cited on the Inspection Receiving report. The value of these DLRs would be expended from the Navy APA COG symbol/Marine Corps ASA Stores Account Code as a COG transfer and capitalized into the stock fund.

The stock fund managers would also assume responsibility for the depot repair of the DLRs transferred. All issues of DLRs, including backorders, after this date would be charged to the customer.

A. DLRs Included Within the Study

The study directive limited the study to Navy and Marine Corps ICP managed DLRs. This distinction was made to specifically exclude all Hardware System Command (HSC) managed items (principal items vice secondary items). During

subsequent group discussions, the universe of DLRs recommended for transfer was further defined and limited. The Navy ICPs manage several categories of items that do not fall within the guidelines of this study. Each Navy ICP performs some inventory management functions for principal items. For example, all SPCC managed ammunition items were excluded from consideration for transfer.

After several discussions concerning the desirability of including the Strategic Systems Project Office material cognizance symbol (COG) items (6A/6H/6X) in the universe of DLRs to be transferred to the stock fund, a separate task review was conducted. As a result of this review it was concluded that the 6A/6H/6X COGs should not be transferred. Appendix E provides additional detail on this recommendation. Exhibit 4-2 provides a tabular display of those DLRs included within the stock fund alternative.

B. Spares Support for New Weapon Systems

New DLR spares are initially stocked in the supply system to support the introduction of new weapon systems or modifications to existing weapon systems. During this interim support period, the design of DLRs is usually unstable and Provisioning Technical Documentation is not available to the ICPs. Spares support during this period is provided by the contractor usually under the provisions of the contract for the new weapon system. DLR interim support is managed by the

UNIVERSE OF DLRs CONSIDERED FOR TRANSFER TO THE STOCK FUND

GENERAL MATERIAL DESCRIPTION	HSC	ICP	CURRENT COG SYMBOLS	PROPOSED STOCK FUND COG SYMBOL	NUMBER OF ITEMS (FEB/APR 78)	ANNUAL VALUE OF ISSUES ($ MILLIONS)
Ship Hull Mechanical & Electrical	NAVSEA	SPCC	2H	7H	30,887	154
Deep Sea Submergence	NAVSEA	SPCC	8H	7H	1,439	8
Surface to Air Ordnance	NAVSEA	SPCC	2U	7H	1,567	66
Underwater Ordnance	NAVSEA	SPCC	4U	7H	1,720	Note 1
Surface Ordnance	NAVSEA	SPCC	6U	7H	3,930	Note 1
NAVSEA Electronics	NAVSEA	SPCC	4N	7H	15,321	116
NAVELEX Electronics	NAVELEX	SPCC	4G	7G	12,739	114
NAVAIR Ordnance	NAVAIR	SPCC	4A	7E	1,912	12
NAVAIR Air Launched Missile Components	NAVAIR	SPCC	6E	7E	1,138	4
SUB-TOTAL SPCC					70,653	474
Aviation Components	NAVAIR	ASO	2R	7R	50,400	2,186
Aviation Components	NAVAIR	ASO	8R	7R	717	Note 2
Training Device Components	NAVAIR	ASO	8N	7R	2,465	Note 2
Catapult/Arresting Gear Reparables	NAVAIR	ASO	4R	7R	447	2
SUB-TOTAL ASO					54,029	2,188
Marine Corps DLRs	HQMC	MCLSBA	SAC 2	SAC 4	3,400	28
TOTAL DLRs					128,082	2,690

1. Issues for 4U and 6U are included in 2U COG figures.
2. Issues for 8R and 8N are included in 2R COG figures.

HSCs and funded in the appropriate procurement accounts. Stock funding DLRs would not change any of these procedures for providing and managing interim support.

The ICPs become involved in the inventory management of DLRs as soon as the Provisioning Technical Documentation is available and the first provisioning buy is made. Under the stock funding proposal, this "first" buy and all subsequent outfitting and replenishment procurement would be made by the stock fund. Appendix F provides additional clarification of the current method of funding interim support, initial spares and replenishment spares as related to the transfer of DLRs to the stock fund.

C. Modification of DLRs and Configuration Control

Closely associated with the support for the introduction of new weapon systems is the modification of existing systems and the impact on both the installed DLRs and the spare DLRs in the supply system. The requirement to modify a DLR results from an Engineering Change Proposal recommended by an HSC end item manager and approved by the HSC's Configuration Control Board. The decision to approve the ECP is based on the necessity to correct deficiencies or improve the capability of the installed equipment, and, therefore, the requirement to modify the spare DLRs is dependent upon this decision. Since the primary decision to modify a DLR is made by the HSCs, no change is recommended to the

current procedure of funding the procurement of all modification change kits for both installed and spare DLRs in procurement accounts. The funding of change kit installation costs for installed DLRs would remain as it is today; i.e., funded by procurement accounts if the work is accomplished commercially and funded by O&M if accomplished organically. However, spare DLRs are usually modified during repair. Since the stock fund would be responsible for depot repair of DLRs, the installation labor costs to install the change kits should be funded by the stock fund. This creates a split in total modification funding responsibility in that the HSC responsible for configuration control no longer has total funds administration responsibilities for the change kit installation funding of spare DLRs.

The HSC Configuration Control Board requires assurance that all funding and necessary support is available or will be made available before a proposed change is approved. Therefore, the role of the ICP (stock fund) member on the Configuration Control Board must be strengthened in that he must have the authority to commit resources of the stock fund for the installation costs of changes in spare DLRs at the time the change is approved by the Board.

This functional relationship between the ICP and the HSC provides the necessary mechanics to satisfy the modification approval and incorporation process, but it also changes

the role of the HSC in meeting his configuration control responsibility.

The modification and configuration control of DLRs is discussed in more detail in Appendix G.

D. Carcass Tracking

Although not directly related to the issue of the DLRs considered for transfer to the stock fund, an important aspect of DLR spares management under any funding alternative is the requirement for tracking NRFI carcasses to expedite their return to the supply system for repair. This requirement will not diminish as a result of transferring DLRs to the stock fund. Since the primary source of RFI replacement DLRs is the repair of NRFI carcasses, the least costly and most efficient method of providing RFI DLRs is the recovery of NRFI carcasses and their repair and return to the supply system within the shortest time cycle achievable. Current carcass return rates are in the 90% or higher range. Whether these rates would improve, or be sustained with less cost and effort, because of the economic incentive of granting credit for returned carcasses is speculative. In either case, the prompt return of NRFI carcasses for repair is vital to efficient spares support whether DLRs are stock funded or not. Appendix H describes the current system for tracking carcass returns.

IV. PROPOSED STOCK FUND PROCEDURES

Existing Directives, Instructions and Regulations would need to be amended to recognize the expansion of stock fund operations but the stock funds would continue to function as revolving working capital funds. The fact that DLRs are repairable and, therefore, a new requirement to provide for repair is added to stock fund operations, does not change the basic nature of stock fund operations. The stock funding of DLRs would be accommodated by means of a standard pricing policy (including a surcharge) and a credit policy which grants credit for the return to the system of NRFI carcasses as well as for items not needed by the customer. The customer returning an NRFI carcass to the system would pay only a "net" price (standard price less credit) representing the average cost of repair and the depot level wash-out (non-survival of repair) rate for that item plus appropriate surcharges.

A. Proposed Changes to Stock Fund Operating Procedures

There are two basic procedural changes required in stock fund operating procedures to fund the procurement and repair of DLRs. The first is the method of applying the surcharge and the second is the credit policy for granting credit to the customer for the return of an NRFI carcass to the supply system.

1. Pricing Policy/Surcharge

Inherent in the concept of a revolving stock fund is the principle that all funds expended by the stock fund

must be recovered. Funds are expended to procure material for outfitting, replenishment of field attrition (failed carcass not returned for depot repair), depot level wash-out, supply system pipeline stocks, and stock losses plus depot repair and transportation costs. COSAL and Carrier/MAG AVCAL outfitting material and field attrition replenishment costs would be recovered when DLRs are issued since the customer has no DLR to turn-in and would be charged the full price of the item. As mentioned above, depot repair costs and depot wash-out costs would be recovered by means of the "net" price derived from the credit policy. The method utilized to recover the cost of supply system pipeline stocks, stock losses, and transportation would be a "tax" (or surcharge) levied against every "taxable" issue. Computing a DLR surcharge can be accomplished by subtracting the total DLR net sales (income) from the total costs to provide RFI DLRs -- the difference being the costs to be recovered. These costs could be recovered from the customer by either of two ways: (1) a surcharge applied only to the outfitting or attrition issues (i.e., an issue without a carcass return); or, (2) a surcharge applied to every issue (with or without a carcass return).

Under the first alternative the surcharge percentage would be substantially higher than under the second because the "taxable" base would be smaller. This alternative has three distinct disadvantages. First, it gives the

illusion of higher stock fund operating costs which could be easily misunderstood by anyone not familiar with stock fund operations. Second, it would unrealistically inflate the book value of inventories. Finally, it collects the supply system pipeline stock costs from only a few of the customers using supply system stocks. These pipeline costs, however, represent primarily the repair turn around time necessary to have an RFI unit available upon request by all users. The second alternative overcomes these disadvantages; the surcharge rate would be lower, inventory book values would be more realistic, and everyone who uses system stock pays for the pipeline costs. Accordingly, the second alternative -- every issue, with or without a carcass return, would include a surcharge -- was selected.

Under the second alternative, it is estimated that the Service stock fund surcharges for DLRs would be 6% for ASO managed DLRs, 9% for SPCC managed DLRs, and 20% for Marine Corps' DLRs. The difference in surcharge rates is caused primarily by differences in repair cycle times which translate to differences in supply system pipeline investment (i.e., lower repair cycle time -- lower surcharge rate). To illustrate, ASO's repair cycle time is approximately 65 days, SPCC's is approximately 120 days and the Marine Corps' is approximately 305 days.

The above percentages are close approximations which were computed using four years of data. They would change as pipeline investment conditions change and, therefore, would require periodic review. However, significant fluctuations are not anticipated since the "taxable" base is so large and moving multi-year averages would be used to derive the surcharge rate. The DLR surcharge -- like all stock fund surcharges -- would be analyzed during each year's budget review.

In addition to the Service surcharge, each DLR standard price would also include the OSD prescribed procurement cost escalation surcharge (currently planned to be 6% in FY 1980). The OSD surcharge is used as a price stabilization device; that is, the OSD surcharge is based on anticipated annual inflation. This precludes the necessity to change prices during the year and minimizes disruption in the customer accounts.

Appendix I provides a detailed explanation of the surcharge.

2. Credit Policy

Stock funding DLRs requires that a credit policy be established to grant credit for the return to the supply system of NRFI DLRs. As discussed above, this credit would reflect the cost of depot repair and the cost of depot wash-out. In developing a credit policy a number of different

alternatives were reviewed. They ranged between the extremes of: (1) charging the customer the full standard price of a DLR upon issue and granting credit upon receipt of the NRFI carcass; to, (2) an average standard price for all issues. The first extreme provides maximum insurance against non-return of carcasses to the stock fund; however, it imposes a significant financial workload throughout the system. The second extreme provides no incentive to return carcasses. A middle ground credit policy was developed. It provides for credit being granted to the customer when the requisition for an RFI replacement unit indicates by an "advice code" on the requisition that a carcass will be returned to the supply system. All other issues will be at full standard price. The credit will be granted immediately by charging the customer a reduced price or net price which represents the difference between the standard price and the credit allowed. This net pricing policy is considered to be the most effective balance between additional workload to the customer and additional risk to the stock fund. The following example illustrates the pricing and credit policies:

<u>Pricing Elements</u>	
-- Purchase Cost	$100
-- Surcharge	15
-- Standard Price	115
<u>Net Price Elements</u>	
-- Repair Cost	$ 30

-- Depot Washout 3

-- Surcharge <u>15</u>

-- Net Price 48

<u>Credit Allowance for Carcass Return</u>

$115 - $48 = $ 67

<u>Policy</u>

-- Standard Price Charged (without a carcass return)

-- Net Price Charged if Advice Code Indicates a Carcass will be Returned

-- Follow-up 75 Days After Issue

-- Customer Charged for Credit Allowance if No Carcass Turn-in Has Been Made.

Appendix J provides a detailed description of the computation of the credit allowance that would be granted, an example of how the policy would operate, a discussion of follow-up procedures and a review of the alternative policies which were examined.

V. <u>CHANGES IN CUSTOMER FUNDING RESPONSIBILITIES</u>

The transfer of DLRs to the stock funds would require significant changes in customer funding responsibilities and procedures. As discussed above, all ICP managed secondary item DLRs would be transferred except those provided for interim support of new weapon systems and those specifically

excluded (e.g., SSPO 6A/6H/6X COG material). Subsequent to transfer, therefore, all procurement and depot repair of DLRs would become the inventory management and funding responsibility of the stock fund managers. All usage of DLRs would be charged to customer accounts.

A. Customers of the Stock Fund

The term "customer" (for stock funded material) applies to any activity which is responsible for budgeting the funds needed to buy material from the stock fund. In this context, there are four types of customers:

-- Activities requisitioning replacement items for usage

-- Activities providing Consolidated Shipboard Allowance List (COSAL) outfitting material and Aviation Consolidated Allowance List (AVCAL) outfitting material for Aircraft Carriers and Marine Air Groups (MAGs).

-- Organic industrial facilities operating under Industrial Fund procedures

-- Organizations or activities external to the Navy desiring to purchase supply system material (e.g., Foreign Military Sales)

1. Activities Requisitioning Usage Material

These activities include all Fleet units and shore stations. Since these customers would be charged for all issues of DLRs from the supply system, the number of high

cost spares for which they would be responsible for funding and the amount of funds administered, would increase significantly. Executing the increased responsibilities of budgeting, funds administration, accounting and reconciling financial accounts would result in increased workload and a requirement for additional personnel to perform these functions. Funds would be budgeted primarily in O&M accounts, although some additional funding would be required for other appropriation customers, such as the RDT&E,N appropriation.

2. Outfitting Allowances

All outfitting allowances are currently funded in procurement accounts and provided to the outfitting sites except for those consumable items already included within the stock fund. The consumable items portion of the initial COSAL for new ships is bought from the stock fund with SCN appropriation funds and any subsequent changes are funded with O&M funds included in the Fleet Modernization Program (FMP). The consumable items portion of the initial AVCAL for support of aircraft in MAGs and on Aircraft Carriers, and all subsequent changes, are funded in O&M by the Aviation Type Commanders. All other stock funded consumable items needed for outfitting are positioned on site by the stock fund and paid for by customers only when requistioned for use.

a. Outfitting New Ships

As discussed in Chapter 3, the SCN appropriation, under the end cost funding concept, is responsible for funding the total cost of new ships and the conversion of old ships, including initial outfitting. Transferring DLRs to the stock fund would expand the stock fund customer role of SCN to include DLRs. No additional funds (except for the surcharge costs) would be required in SCN since DLRs are currently procured directly with SCN funds or, if the DLRs are in the supply system, the OPN or WPN appropriations are reimbursed with SCN funds. Any subsequent changes to the COSAL for DLRs are currently funded in OPN and WPN. The current procedure of funding stock fund consumable item changes with O&M FMP funds would not only be inappropriate, but would not recognize the end item manager responsibility for these changes. Accordingly, customer funding for changes to the COSAL, including consumables, should be funded in the OPN and WPN appropriations.

b. Aircraft Carrier and MAG AVCALs

AVCALs for Aircraft Carriers are allowance lists to support the on board deck load of aircraft. The COSAL for each Carrier supports the installed equipment on the Carrier and would be funded in the same manner as discussed above. The current procedure of funding consumable items for initial AVCALs, and all subsequent changes, with the Aviation

Type Commanders O&M funds would be impacted by the transfer of DLRs to the stock fund in the same manner as discussed above for COSAL allowance lists. Additionally, although aircraft deck load changes for Carriers require substantial Fleet participation in determining the final AVCAL, the multi-year availability of procurement account funds can better accommodate the changes in new Aircraft Carrier delivery dates, overhaul schedules, and deployment dates. In view of these considerations, the study group concluded that the initial AVCAL for both DLRs and consumable items for Aircraft Carriers and MAGs, and all subsequent changes (including those caused by an adjustment in the aircraft deck load on Carriers) should be funded in the APN appropriation.

In summary, the Naval Material Command would be responsible for budgeting in procurement accounts the funds required to buy from the stock fund all items required for initial outfitting (and any changes) of ship COSALs and Aircraft Carrier/MAG AVCALs. All shore station outfitting material, both DLRs and consumables, would be procured by the stock fund and positioned on site. The customer using this material (COSAL, AVCAL or shore station allowances) would pay with his operating funds only when requisitioning a replacement item. Exhibit 4-3 illustrates the revised funding responsibilities. Appendix K provides a description of the various alternative funding options that were considered.

EXHIBIT 4-3

NAVY CUSTOMER FUNDING RESPONSIBILITY (CONSUMABLES & DLRs)

FUNDING RESPONSIBILITY	SHIPS			
	ALLOWANCES		CONSUMPTION	
	INITIAL	CHANGES	FLEETS	OTHER USER
CONSUMABLES TODAY	SCN	O&M (FMP)	O&M (OPTAR)	OP FUNDS (USER)
DLRs TODAY	SCN	OPN/WPN	OPN/WPN PROCUREMENT O&M REPAIR	
CONSUMABLES & DLRs IN STOCK FUND	SCN	OPN/WPN	O&M (OPTAR)	OP FUNDS (USER)

FUNDING RESPONSIBILITY	AVIATION			
	ALLOWANCES		CONSUMPTION	
	INITIAL	CHANGES	FLEETS	OTHER USER
CONSUMABLES TODAY	O&M (AVCAL)	O&M (AVCAL)	O&M (AFM)	OP FUNDS (USER)
DLRs TODAY	APN	APN	APN PROCUREMENT O&M REPAIR	
CONSUMABLES & DLRs IN STOCK FUND	APN	APN	O&M (AFM)	OP FUNDS (USER)

FUNDING RESPONSIBILITY	SHORE ACTIVITY			
	ALLOWANCES		CONSUMPTION	
	INITIAL	CHANGES	FLEETS	OTHER USER
CONSUMABLES TODAY	NSF	NSF	O&M (STATION OPS)	OP FUNDS (USER)
DLRs TODAY	OPN/WPN/ APN	OPN/WPN/ APN	OPN/WPN/APN PROCUREMENT O&M REPAIR	
CONSUMABLES & DLRs IN STOCK FUND	NSF	NSF	O&M (STATION OPS)	OP FUNDS (USER)

3. Organic Industrial Fund Activities

Organic depot repair facilities currently buy consumable material from the stock fund and recover these costs by including them in the amount charged for depot repair of the end item. Although stock funding DLRs would raise the overall level of financial transactions, and the customer cost of repair/rework of the end item, this procedure would not change.

4. Organizations Buying Material from the Navy

There would be no change in current procedures. The price charged for DLRs available in the supply system would include the surcharge and, therefore, would reflect more accurately the cost to the Navy.

5. Marine Corps Customer Procedures

The Marine Corps currently funds all Marine Corps Stock Fund (MCSF) outfitting (including modification change kits) with Procurement, Marine Corps (PMC), appropriation funds. Repair parts replacement is funded in the Operation and Maintenance, Marine Corps (O&MMC) appropriation. DLR outfitting and allowance replacement is funded with PMC. DLR repair, along with the primary end item repair, is funded in the O&MMC appropriation.

Subsequent to the transfer of DLRs to the stock fund, the MCSF would finance the procurement and depot repair of all items. PMC would fund outfittings and the customer would fund allowance replacement with O&MMC funds.

Centralized management of maintenance float accounts would continue to be coordinated at the ICP level with free exchange provided to FMF customers of these floats.

VI. FUNDS REQUIRED BY CUSTOMERS AND THE SOURCE OF THESE FUNDS

One of the primary concerns in stock funding DLRs is the issue of the customer being provided sufficient funds to pay for the DLRs. This issue raises the following questions:

-- How is the level of customer funding to be determined?

-- What currently programmed or budgeted funds would be transferred to customer accounts?

-- Are these funds adequate to fully fund customer requirements?

To answer these questions the FY 1980 budget (at the minimum vice basic level) submission to OSD/OMB was used to project the total customer funding requirements and the available funding to satisfy these requirements. This analysis assumed that there would be no change in customer demand as a result of customers having to pay for DLRs.

A. Customer Funds Required

As discussed above, interim support would not be included in the stock fund and would continue to be funded in procurement accounts. COSAL and Carrier/MAG AVCAL outfitting material would be initially procured by the stock fund. The stock fund would be reimbursed for this material with

procurement account funds when issued to fill COSAL and AVCAL allowances. All replenishment of allowance material (with or without carcass returns) would be paid for with customer operating funds. Additionally, the appropriate procurement or operating accounts would have to fund any backorders which exist at the time of the transfer. These backorders would be priced at the full standard price if they are for outfitting or for replenishment of field attrition. Backorders which involve carcass returns would be priced at the net price. It should be noted that the surcharges would be included in all the above pricing. Based on the FY 1980 budget submission to OSD/OMB, DLR customer funding requirements (including all surcharges) were derived as follows:

		($ in Millions)
1.	ASO managed DLRs:	
	Outfitting Material	129
	Field Attrition	104
	Replenishment with Carcass Return	581
	Backorders:	
	Outfitting Material	16
	Field Attrition	11
	Replenishment with Carcass Return	75
	ASO TOTAL	916
2.	SPCC managed DLRs:	
	Outfitting Material	119
	Field Attrition	64
	Replenishment with Carcass Return	154

Backorders:		
Outfitting Material	17	
Field Attrition	8	
Replenishment with Carcass Return	25	
SPCC TOTAL	387	
3. Total Navy Customer Funding Required	1,303	
4. Marine Corps managed DLRs		
Outfitting Material		4.9
Field Attrition		.4
Replenishment with Carcass Return		26.7
Backorders:		
Outfitting Material		.8
Field Attrition		.1
Replenishment with Carcass Return		4.4
Total Marine Corps Customer Funding Required		37.3

B. Source of Funds

Funds to satisfy the above DLR requirements would be available from three basic sources. First, funds budgeted in the procurement accounts for DLRs, except for interim support, would not be required since the stock fund would be responsible for procuring DLRs for ultimate issue to the customer. Second, funds budgeted for depot repair of DLRs would not be required since the stock fund would pay for depot repair by recovering funds from the customers through the net pricing procedure.

The third source, the stock fund cash accrual, requires more explanation. On the date of the transfer of DLRs, the stock funds would begin selling system assets to customers. Replacement procurement and repair would be initiated using stock fund obligation authority. The selling of assets would result in stock fund cash collections beginning immediately after the transfer. Stock fund expenditures (cash outflow) would not begin until delivery of the items one Procurement Lead Time or Repair Turn Around Time after initial obligation. The net result would be a stock fund cash build-up that would approximate the value of the procurement and repair pipeline at the time of the transfer. This cash accrual, however, would be sensitive to the level of demand. If demand decreases the cash accrual would also decrease on a dollar-for-dollar basis.

Based on the FY 1980 budget submission to OSD/OMB, the following summarizes the funding sources:

1.	Navy DLRs	($ in millions)
	Procurement of ASO DLRs	384
	Repair of ASO DLRs	439
	Procurement of SPCC DLRs	244
	Repair of SPCC DLRs	112
	Navy Stock Fund Cash Accrual	498
	TOTAL NAVY FUNDS AVAILABLE	1,677

2. Marine Corps DLRs

Procurement	12.5
Repair	10.3
Marine Corps Stock Fund Cash Accrual	22.3
TOTAL MARINE CORPS FUNDS AVAILABLE	45.1

C. Funds Available Compared to Requirements

The $1,677 million available in the Navy budget submission exceeds the $1,303 million customer requirement and the $59 million stock fund cash requirement by $319 million, primarily because of the one time cash accrual. Customer accounts could be fully funded by transferring previously planned DLR procurement and repair funds to the appropriate customer accounts and by scheduling periodic cash transfers from the stock fund to customer accounts during the first year. In addition, an adequate stock fund cash balance could be maintained during the first year to provide a margin for possible decreases in demand or other emergent problems. Appendix L provides a detailed discussion of the derivation of these numbers and the recommended procedure for distributing the funds to the appropriate customers.

The Marine Corps situation is significantly different because of the DLR underfunding currently revealed in the PMC and O&MMC budgets in FY 1980. Although first year cash accrual is adequate to provide for cash transfers to

customer appropriatons, the unfunded requirements that would be funded with Marine Corps stock fund resources would preclude any significant cash build-up. This situation could be altered if the Marine Corps were to revise its planned funding priorities in the year of implementation to fully fund the DLR procurement and repair requirements. Should that action take place the Marine Corps would experience an accrual of funds similar to the Navy.

VII. BUDGET DEVELOPMENT

Development of the budget for the procurement and repair of DLRs in the stock funds involves two related but different budgets. The first is the ICP developed budget which addresses the DLR procurement and repair requirements and is used to justify the budget request for stock fund obligation authority. As such, it is the primary vehicle for establishing DLR procurement and repair requirements. The obligation authority requested, however, does not constitute a budget request to the Congress for the appropriation of funds. The second budget, which does request the appropriation of funds by the Congress, is the budget prepared by all customers of the stock fund for the purpose of buying from the stock fund material as needed. As compared to the current system of budgeting these requirements in Headquarters managed procurement and O&M appropriations, this basic shift in budgeting responsibility essentially means that the current HSC, NAVMAT,

OPNAV, HQMC and NAVCOMPT role in reviewing the stock fund budget would expand and would be the primary method for addressing DLR procurement and repair requirements.

A. Stock Fund Budget

The stock fund budget for obligation authority would be prepared for outfittings, replenishment procurement and repair of DLRs using the same stratification, budget development and review process that is currently used for these requirements. One additional feature would require an offsetting adjustment to reflect the estimate of credits to be granted for the return of NRFI carcasses.

In order to minimize the difficulty of tracking and analyzing DLR requirements in the stock funds, DLRs would be financed under one new stock fund budget project for each ICP. The funding alignment within this budget project would be in the same four distinct categories as exist today under appropriation financing; i.e., initial, replenishment, repair and war reserves. Stock fund budgets for DLRs would be prepared in virtually the same manner (except for offsetting adjustments for estimated credits) and use the same data as is utilized today to develop APA/ASA budgets for the Navy and Marine Corps. Most budget exhibits and forms used for procurement account budgeting are almost identical to existing stock fund budget exhibits. Appendix D provides a more detailed description of the current budget development process

for both the procurement and repair of DLRs and the current stock fund procedures.

B. <u>HSC Outfitting Budget</u>

The HSCs would prepare the procurement account budgets for COSAL changes and Carrier/MAG AVCALs (including consumable items). There would be little change to the current procedures for determining and budgeting outfitting requirements except for the need for a more active interface with the Fleet Aviation Type Commanders to determine the budget requirements for AVCAL changes.

The most significant revision would be that rather than budget for the procurement of DLRs to put into the supply system, the budget would be prepared on the basis of buying from the supply system. Since buy out normally occurs at least one year later than system procurement, more accurate budget estimates could be made.

C. <u>Fleet and Shore Station Customer Budgets</u>

An additional area of concern in stock funding DLRs is the issue of how the transition would be made from centrally managed procurement and O&M account funding to customer operating account funding. Specifically, this issue raises the following questions:

-- How will the initial requirement for funds be determined and included in the operating accounts?

...

-- How do the customers budget for the second and subsequent years if DLRs are charged to customer accounts?

1. Initial Transition to Customer Operating Accounts

During the review of the Navy budget submission for the implementation year of the DLR transfer, the dollar value of customer requirements would be calculated using basically the same procedure as previously described in Paragraph VI A. After determination of the funding required, the Major Claimants would be advised of the amount of funds which they should add to their budget submissions. Initial distribution of funds between Major Claimants would be calculated using a percentage relationship to prior year gross issue demands as reflected in the stratification and adjusted for introduction of new weapon systems, force level changes and changes in operating levels (e.g., aircraft flying hours).

As in all major changes in budgeting procedure, specially prepared exhibits to explain and justify the change in funding at all levels of review, including the Congress, would be required. Briefly, these exhibits would demonstrate the current system, the change being proposed and the justification for the change. Very little participation by the customers, beyond that which is currently required, would be necessary. The primary burden of justifying the change would necessarily rest with the Navy Comptroller, assisted by appropriate back up witnesses.

2. Customer Budgeting for Subsequent Years

Since the first fiscal year of budget execution using the stock fund procedures will not have commenced at the time the budget is being prepared for the second year, the same procedures as outlined above would be used to establish the customer budgets.

Customer budgets for the third year would be based primarily on the value of the usage experience gained during the first year. This value, however, would only serve as the base for estimating and justifying the changes forecast for the third year's budget. Adjustments would be reflected to support any forecast change in end item equipment operating levels, such as aircraft flying hours or ship operations; and, any anticipated additions required by the introduction of new weapon systems.

The DLR requirements determination process which establishes the items and quantities of DLRs to be procured and positioned in the supply system for outfitting allowances and replenishment would remain a Headquarters/ICP responsibility. Justification of this procurement and repair requirement is the basis for obtaining stock fund obligation authority and is based on the ICP asset stratification process, which reflects issue demand, plus forecast requirements for outfitting material. Appendix M provides additional discussion of the requirements determination process.

VIII. BUDGET EXECUTION

Budget execution procedures would not change significantly from the procedures currently used in executing stock fund budgets and the budgets of stock fund customers. The primary impact would be the additional financial workload imposed on Fleet and shore station customers.

A. Stock Fund Budget Execution

Although stock fund budget execution would experience a higher level of financial transactions because of the addition of DLRs, the basic procedures would be the same. The timing and documents used to transmit funds from OMB/OSD to the ICP (via NAVCOMPT, NAVMAT, NAVSUP or HQMC) would not change. The legal controls regarding use of obligation and commitment authority would not change. One change that would occur would be the addition of separate OPTARs for repair funds on the funding documents passed to the ICPs. For SPCC and the Marine Corps, an OPTAR for "Repair of DLRs" would be added to the existing OPTARs for Replenishment Procurement, Provisioning Procurement and War Reserve Procurement. The Marine Corps would continue to restrict transfers between Marine Corps stock fund OPTARs without the approval of HQMC. SPCC would use the same controls as are currently in effect; i.e., only the War Reserve OPTAR may not be changed without OSD approval. ASO would get two new OPTARs -- "Commercial Repair of DLRs" and "Organic Repair of DLRs." The "Organic Repair of DLRs" OPTAR

would include a limitation that funds could not be transferred into or out of the OPTAR without the approval of NAVAIR and NAVSUP. This additional constraint is considered essential to ensure that adequate funds are available to provide for achieving the planned workloading of the NARFs. All War Reserve OPTARs would require OSD approval to change.

ICP execution of stock fund budgets for DLRs would not change significantly. One required change, however, would be the allotting of stock funds by ASO to the Naval Aviation Logistics Command (NALC). The NALC would continue to distribute funds to the various Naval Aviation Rework Facilities (NARFs) to accomplish the required repair actions in accordance with the plans established at the workloading conferences and as calculated and transmitted by ASO. No ICP procedures for determining the procurement or repair requirements for DLRs would be changed. ICPs would continue to execute stock fund budgets by tracking actual customer orders (sales plus or minus the change in funded backorders) against the plan and increasing or decreasing the obligation rate as required. Appendix D provides further amplification of stock fund budget execution.

The Marine Corps Logistics Support Base ICP would continue to execute as today -- obligation at a rate to achieve the level of Approved Obligations by the end of the fiscal year.

B. Customer Budget Execution

Except for the additional Fleet and shore station financial workload, customer budget execution procedures would be very similar to those used currently.

1. COSAL and Carrier/MAG AVCAL Outfittings

Although consumable items, as well as DLRs, would be funded in procurement accounts, the determination of procurement requirements would be through the stock fund budget development and execution process. Execution of the procurement account customer budgets for COSAL and AVCAL material would involve the buying of this material from the stock fund. All other outfitting requirements would be positioned on site by the stock fund and would be charged to customer accounts only when replacement items are requisitioned.

2. Fleet and Shore Station Budget Execution

Execution of these budgets would be accomplished through the assignment of OPTARs to operating units in the same manner as that currently used to provide operating funds. The increase in funds included in the OPTARs would not create any additional workload. However, the high cost of some DLRs very probably would require more frequent adjustment of individual operating unit OPTARs. Additional workload effort at the Major Claimant and TYCOM level would be required to make these adjustments.

Industrial activities would buy from the stock funds all items required (including DLRs) for the rework of end items and other DLRs.

IX. ADDITIONAL AREAS AFFECTED BY STOCK FUNDING DLRs

Several key management areas and systems, in addition to those already discussed, would be affected by stock funding DLRs. The most important changes are those which affect the organizational management interfaces, manpower requirements, maintenance activities and the financial and supply management computer programs.

A. Organizational Management Interfaces

Although the basic method of determining DLR procurement and repair requirements through the stratification and budget review process would not change, the method of funds flow and control, the management procedures for control of the budgeting and execution of the spares program, and the flexibility to balance overall funding requirements between the spares program and other program requirements would change significantly.

1. Funds Flow and Control

The current method of Navy DLR funds flow and control through NAVCOMPT and NAVMAT to the HSCs centrally managed procurement and repair accounts would be changed. Instead of the current method, stock fund obligation authority would be provided by NAVCOMPT through NAVMAT to the Commander,

Naval Supply Systems Command, for allocation to the ICPs for the procurement and repair of DLRs. Additional funds for the procurement, RDT&E and O&M customer accounts to buy stock fund material would be allocated by NAVCOMPT in accordance with current procedures.

2. Management Procedures for the Control of Budgeting and Executing of the Spares Program

Currently OPNAV and NAVCOMPT review the spares requirements in procurement and O&M appropriations. Adjustments of the funding requirements are made within the spares program and between the spares program and other program requirements. Stock funding DLRs would shift the focus of this review to the spares requirements as presented in the stock fund budget for obligation authority and the review of customer funding requirements to buy stock fund material. This shift in focus would not necessarily change the OPNAV program sponsors involvement in the establishment of spares requirements. It would, however, substantially reduce the OPNAV program sponsors direct involvement in funding trade-offs between the spares program and other program requirements. Any adjustment in funds would have to be made by NAVCOMPT in the customer budgets. Because of the procurement lead time the customer budgets would have to remain reasonably in balance with the prior year stock fund budget. The two cannot remain out-of-balance very long because either the stock fund would

buy material that the customers could not purchase or the customer would have funds to buy material that would not be available.

The NAVMAT role in consolidation of budget requirements and review of program execution would not change. Although there would be a decrease in the procurement appropriations interface with the ICPs and HSCs, an oversight management role by NAVMAT to ensure proper funding of DLR requirements in the stock fund would be required.

The HSCs would continue to maintain technical responsibility for DLRs including configuration control, modifications, field changes, and assignment of Designated Overhaul Points. They would also continue to identify requirements on a program basis to the ICP program manager who would develop the DLR requirements. The HSCs would participate in all decisions having financial impact upon their programs such as workloading the depot rework facilities. However, they would not be involved in the direct flow of funds for the procurement or repair of DLRs. This financial interface would be eliminated by stock fund obligation authority being allocated to the Commander, Naval Supply Systems Command, for sub-allocation to the ICPs. The Naval Air Systems Command would continue to participate actively in the allocation of DLR organic repair funds via the interface with the Naval Aviation Logistics Command (NALC) in

workloading of the various Naval Air Rework Facilities. These functional changes would have a different impact on each of the HSCs compared to the relationships and responsibilities in effect today. For the DLR repair program, the impact on NAVSEA and NAVELEX would be much less than on NAVAIR, since both NAVSEA and NAVELEX currently have given DLR repair funding management responsibility to the ICP. In contrast, NAVAIR in conjunction with OPNAV and NAVMAT has total responsibility for the aircraft rework program, including DLR component rework. Transfer of DLR repair funding to the stock fund would reduce the overall aircraft rework program funding by nearly one half and, therefore, would reduce the current funding flexibility available to adjust elements of the program.

NAVSUP's role in DLR budget development and execution would increase but the interface between NAVSUP and the ICPs and between the ICPs and HSC program managers to develop program based DLR requirements would not be changed.

3. Marine Corps

Most of the changes resulting from transferring DLRs to the Marine Corps stock fund would be internal shifts at the Headquarters level. There are only minor changes expected at the ICP and DOP levels.

B. Manpower Requirements

There would be some reduction in manpower requirements in the HSCs and Navy ICPs because of the reduced

number of funding accounts to be budgeted and executed. Additionally, stock fund dollars are apportioned on an annual basis and obligated balances can be carried forward to the next fiscal year. Therefore, the workload associated with accounting and reporting for multiple year funds would be reduced. Staffing changes at HQMC and the Marine Corps ICP are not anticipated.

The analysis of the requirement for additional manpower to perform the financial management, accounting, monitoring and reconciling efforts that are needed to implement the stock funding procedures at the customer level is discussed in Chapter 5.

C. Maintenance and Depot Repair Activities

Although there would be no changes in the operating procedures of operational, intermediate and depot rework activities, these activities would be impacted by the additional financial workload discussed above. In addition to the workload, however, there is a danger that the financial incentive at the operational and intermediate maintenance levels could result in a disincentive to comply with established maintenance plans for the repair of DLRs.

1. Maintenance Quality at Operational and Intermediate Levels

Maintenance plans are currently developed for each individual DLR which prescribe the degree of repair

that will be performed at each maintenance level. Because of the complexity of the repair process for some DLRs, these plans do not authorize their repair at maintenance activities below the depot level. The increased financial emphasis at the user level may encourage some disregard for these plans and result in increased attempts to perform unauthorized repair or increased cannibalization in order to save user funds.

Additionally, maintenance plans for selected DLRs prescribe that these DLRs must be returned to the depot at specified intervals of operating time even though there is no evidence that the unit is not operating properly. The engineering judgment in designating operating time limits is based on safety reasons or the economy of extending the total effective life of the DLR through the use of prescribed depot rework procedures. The financial emphasis at the user level may also persuade the user to delay returning an operating DLR to the supply system since he would have to pay for a replacement unit. This would particularly apply to components which affect full system capability and are not related to safety.

Over the long run, any increase in these unauthorized efforts would result, as they do now, in delays and/or damage to carcasses returned for depot repair, increases in unit depot repair costs, and degrade the overall effort to improve material readiness. Although these potential

unauthorized efforts should present no major problem to maintenance management levels, they will require increased vigilance to ensure adherence to approved maintenance plans.

2. Depot Rework Facilities

As discussed above, except for the allotment of stock fund obligation authority to the ICPs by the Commander, Naval Supply Systems Command, there would be very little change in the organizational interfaces between NAVSEA/NAVELEX and the depot rework facilities. The most significant revision would occur in the aviation depot repair process. The flow of funds for the organic repair of aviation DLRs would be from NAVSUP to ASO to NALC to the NARFs. While this revision would not result in any change to NALC or NARF operations, revised procedures would be required to ensure that workloading by the NARFs for DLR repair is properly coordinated.

In addition to the repair of spare DLRs by the depots, customer funding for end item rework would have to be augmented to pay the additional depot operating costs resulting from the requirement to pay for DLRs used in end item rework. Also, augmentation of the NIF corpus for depot facilities would be required to reflect the additional operating cash required for the higher costs of end item rework. Appendix N discusses the impact on maintenance activities.

D. Computer Systems/Programs

The additional requirement for processing financial data and the impact of the two price credit policy

will require a substantial effort (estimated to be 60 manyears) to reprogram existing computer programs. Revisions would have to be made to all ADP computer programs involving financial and supply management data impacted by the revised stock funding procedures. Although this can be accomplished with dedicated effort, there would have to be a high priority established to accomplish the task prior to implementation of stock funding DLRs. No assessment was made of the programming efforts which would have to be reduced in order to accomplish this high priority effort.

The area of most concern is the shipboard AN/UYK-5 computer. These computers are currently saturated with existing program requirements and, because the equipment is old and unreliable, the data processing times are unsatisfactory. There is currently a moratorium on additional program changes until the SNAP (Shipboard Non-Tactical ADP Program) upgraded computer processors are available. The best estimate for the initial installation of these new processors is FY 1982. If this effort can be accelerated, or at least achieved within the current estimate, it is not recommended that the AN/UYK-5 computer programs be revised. Included within the 60 manyears estimate is 18 manyears for revising AN/UYK-5 programs which would be reduced to two manyears if the changes for stock funding DLRs are included within the initial program- ming effort for the new SNAP computer processors. Appendix O provides additional details on the impact on computer systems.

XI. PRE-IMPLEMENTATION REQUIREMENTS

In order to effect an orderly, coordinated transfer of DLRs to the stock funds, a decision on the transfer would be required at least 18 months prior to the fiscal year of implementation. Although other pre-implementation requirements are discussed below, the three primary reasons for such a lengthy pre-implementation period are: (1) the development of the budget; (2) the reprogramming of computer financial and supply management programs; and, (3) the necessity for a more thorough development of manpower requirements and the time required to get the people transferred prior to the beginning of the fiscal year of implementation. The manyear effort required to reprogram computer programs has been discussed previously and the analysis of the manpower requirements is addressed in Chapter 5.

A. Budget Development Period

The data base for determining DLR procurement and repair requirements and customer funding requirements is the stratification of DLR requirements/assets completed by the ICPs in March prior to the budget submission. Using this data and the procedures previously described, the DLR requirements for the stock fund budget and the customer funding requirements could be determined and included in the budget submitted to NAVCOMPT for a thorough, orderly review. An out-of-cycle effort to shift to stock funding DLRs could easily result in

significant errors in the budget. The overall impact of the transfer on stock fund and customer budgets; the necessity to accurately identify and budget for the additional personnel required by Fleet and shore station activities; and, the already overburdened budget review process are factors which must be considered.

B. Additional Pre-Implementation Considerations

The following additional areas either require resolution or establishment of procedures prior to implementation.

1. Legislative, Policy and Directives Changes

Although a number of changes to existing policies, directives and regulations would be required the two primary changes are the revisions to the language in the Appropriation Act defining the purpose for each appropriation and revision of the "Definitions of Expense and Investment Costs" contained in DOD Instruction 7040.5. Appendix P provides a review of the more significant changes required.

2. Updating DLRs to New Stock Fund Prices

The transfer would be accomplished with new stock fund standard prices since the COG symbol, Stores Account Codes (SAC), and price changes would be included in the same change notice action.

3. Pre-Implementation Control on Drawdown of DLRs

To prevent hoarding ("Get 'em while they're free"), adequate issue controls must be designed and in place

AD-A073 185 OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON DC F/G 5/1

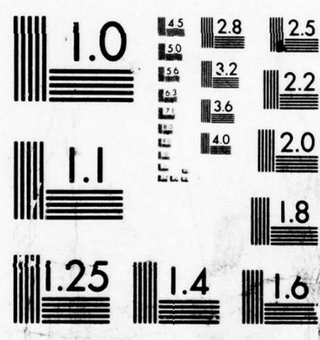
DEPOT LEVEL REPARABLES: AN ANALYSIS OF CURRENT AND ALTERNATIVE --ETC(U)

AUG 79 R J MOLONEY

UNCLASSIFIED NL

2 OF 4

AD
A073185



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

prior to the date of transfer. The Navy's Fixed Allowance concept and the techniques of CLAMP and FIRM offer some of the necessary tools. However, additional control and monitoring of issues to customers would be required.

4. New Cognizance (COG) Symbols

COG assignments within the Navy serve to identify the inventory manager having supply support responsibility for a commodity of material. Within the Marine Corps, Stores Account Codes (SAC) are utilized to segregate inventory into three categories; Stock Fund Account (SFA), non-principal investment items (including procurement funded depot level reparables), and principal end items. The transfer of DLRs from APA/ASA to NSA/SFA would require revision of current COG and SAC assignments. In changing COG/SAC assignments it is desired to create as little disruption as possible to supply and financial data processing systems while, simultaneously, retaining the capability to track separately key data used in budgeting and managing inventories.

Accordingly, Navy DLRs would be transferred into four new COGs, each of which is identified to the Inventory Manager and the appropriate Hardware Systems Command, and includes all DLR COGs presently assigned. The new COG assignments are as follows:

NEW COG	HSC/IM	OLD COGS
7H	NAVSEA/SPCC	2H, 8H, 4N, 2U, 4U, 6U
7G	NAVELEX/SPCC	4G
7E	NAVAIR/SPCC	4A, 6E
7R	NAVAIR/ASO	2R, 4R, 8R, 8N

The current "4-digit COG" capability, in conjunction with the new DLR COGs, can be used by the ICPs to recognize the previous COG designation in order to provide comparability of current and previous year management data if deemed desirable. Marine Corps DLRs would be transferred from SAC-2 into the previously utilized and discontinued SAC-4, thereby providing for the desired material and transaction identification.

5. SCN Funded DLRs

In view of the fact that SCN funds would have been provided to the ICP for procurement of items for the specific purpose of outfitting a new construction (or newly converted) ship, transfer of these DLRs into the stock fund and subsequent "sale" to SCN would constitute inappropriate duplication. Accordingly, financing DLRs in the stock fund would require that on the effective date of the change all assets on hand and on order financed by SCN must be identified and protected for issue to SCN without reimbursement to the stock fund. This could be accomplished by use of a special purpose code. Subsequent to transfer, SCN funds would be used

to buy from the stock fund in the same manner that expense items for outfitting are currently purchased from the stock fund.

XII. SUMMARY

The recommended procedures for stock funding DLRs and the impact of these procedures on several areas of DLR spares management and funding responsibility have been described in order to provide a basis for the evaluation of the stock funding alternative. A number of the changes and impacts which have been described are relatively minor. Of those which are significant, however, none is considered to have such a major impact as to preclude the feasibility of stock funding DLRs. The evaluation of this alternative and a comparative analysis of the current system and the single appropriation alternative is provided in Chapter 6.

CHAPTER 5

AN ANALYSIS OF MANPOWER REQUIRED

I. INTRODUCTION

Of the two alternatives to the present method of funding the procurement and repair of Depot Level Reparables (DLRs), only the stock funding alternative has an impact on Navy and Marine Corps manpower requirements. This Chapter, therefore, assesses the impact of the increased manpower required for the stock funding alternative. The analysis of the manpower requirements included a review of the DLR requisition transaction frequency for a wide selection of activities and consideration of the task/functional workload imposed on the various Fleet and shore activity staff levels.

II. METHODOLOGY

The manpower workload analysis yielded two distinct categories for evaluation: (1) the material end user (operating forces/shore field activities) at the unit level; and, (2) the various staff levels (TYCOM/CINC, FMF/HQMC, NAVCOMPT/OPNAV/NAVMAT). Specific standards for evaluating the financial workload changes at unit and staff levels are not available. The Navy Manpower and Material Analysis Center, Atlantic (NAVMMACLANT) advised the study group that standards for the staff level are currently under development and are expected to be available in CY 1979. In the absence of such

standards it was difficult to derive a manpower workload factor for use in the study. Therefore, the workload manhour (M/H)/ manyear (M/Y) requirements developed by the study group are the best estimates currently available. They are considered to represent reasonable estimates for the evaluation of the manpower impact of transferring DLRs to the stock fund. If a decision is made to transfer DLRs, a formal manpower study should be conducted.

A. Transactional Analysis

The material end users, identified by a Unit Identification Code (UIC), are the ships, aviation squadrons, shore activities, USMC Maintenance Float Accounts, and industrial activities that generate material replenishment requirements. Most UIC demands for DLRs by specific COGs and frequency of requisitions are identified and recorded at the two Navy Inventory Control Points (ICPs). Although there are exceptions, despite this partial lack of data substantial information was available to formulate an estimate of manpower requirements. For aviation units the requisition data was cross checked by comparison with the 3-M data for BCM (Beyond Capability of Maintenance) transactions. The higher number of either total requisitions or BCM actions was used in the analysis as detailed later in this Chapter. The study group extracted the requisition demand frequency by COG symbol for DLRs identified for transfer to the stock fund. This data

was segregated by UIC within each service code (LANT/PAC/Shore/USMC/USCG) and a total derived for each related major command in order to determine the volume of requisitions for FYs 77-78. A number of shore activities, including a Naval Air Rework Facility (NARF) and Fleet units were visited to determine the workload impact of transferring DLRs to the stock fund. By examining the work effort associated with processing each requisition, an assessment was made of the workload change factor (Delta) of handling an APA transaction (no charge to the UIC) versus handling the same item as a NSA transaction (chargeable to the UIC). It should be noted that the end user is not currently required to consider the financial implications of paying for higher dollar value DLRs. The activities visited provided the study group with estimates of average workload "Deltas" that ranged from a high of 12 manhours per requisition transaction to a low of .555 manhours per transaction. These UIC manhour estimates reflected recognition of DLR dollar values, new accountability requirements, current manpower quality/quantity shortfalls in the technical and supply ratings (particularly aviation storekeepers (AKs)), and ADP hardware/software problems. Appendix Q, TABS 1 and 2, provide examples of these estimates.

The study group was assisted by NAVMMACLANT's evaluation of the concept and methodology utilized by the study group in developing the estimated Deltas. In addition,

library research provided two sources of additional information on Delta development. They were the American Management Systems, Inc. (AMS) ship oriented study ("Transfer of Depot Level Reparables to a Revolving Fund"), and a Grumman Corporation aviation oriented study for the Marine Corps (NALCOMIS Site Requirements Survey).

B. Functional Analysis

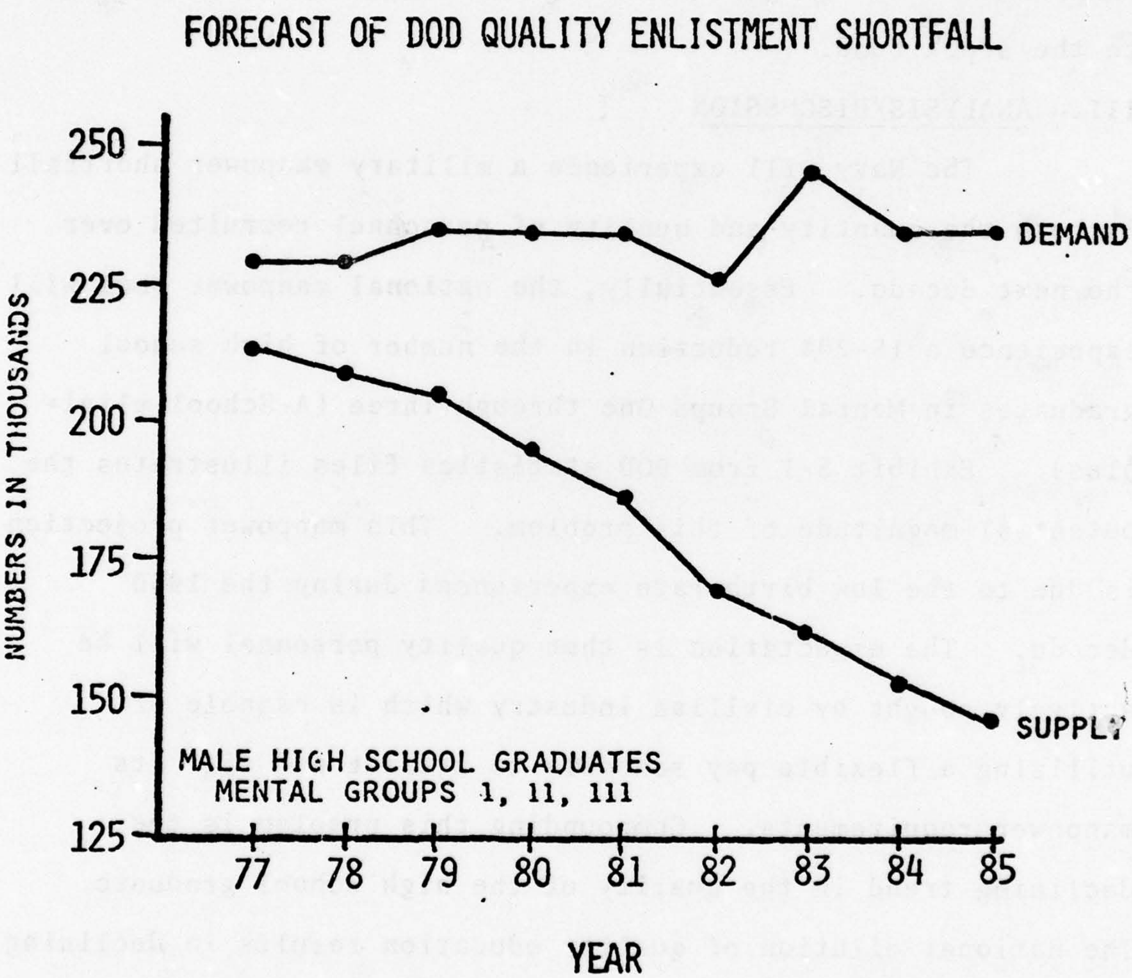
The determination of the workload Delta at the CINC/TYCOM/FMF staff level did not lend itself to the methodology of transactional analysis. While some transaction type requirements would impact these staffs, primarily in the size and number of different funding allocations managed, the type of financial workload required a functional approach to determine manpower requirements. This involved a comparison of resources utilized in the current DLR management effort with the estimated resources required for the proposed stock funding alternative. The manyears used during the POM process, budget development, and budget execution are not readily identifiable through any source data. The functional approach to determine manyears expended (or to be expended) specifically in these areas relative to DLRs had to be developed through utilization of CINC/TYCOM/FMF estimates of the additional workload. This was accomplished after the study group visited each TYCOM and provided a briefing on the proposed stock funding procedures. Additionally, the CINC/TYCOM concerns provided to the study group were considered during the course of the study.

Manpower requirements at the Headquarters (OPNAV/HQMC/NAVMAT/SYSCOM) and ICP levels also were established on a functional basis. The primary area examined in developing a manpower Delta for this area was the work effort performed currently in the financial management of DLRs as compared to the change in work effort if DLRs are transferred to the stock fund.

III. ANALYSIS/DISCUSSION

The Navy will experience a military manpower shortfall in both the quantity and quality of personnel recruited over the next decade. Essentially, the national manpower pool will experience a 15-20% reduction in the number of high school graduates in Mental Groups One through Three (A-School eligibles). Exhibit 5-1 from DOD statistics files illustrates the potential magnitude of this problem. This manpower projection is due to the low birth rate experienced during the 1960 decade. The expectation is that quality personnel will be actively sought by civilian industry which is capable of utilizing a flexible pay schedule to attract and fill its manpower requirements. Compounding this problem is the declining trend in the quality of the high school graduate. The national dilution of quality education results in declining basic skill capabilities. The Navy has taken an early lead in developing a program to counter this problem. In conjunction with the Department of Health, Education and Welfare, the Job

EXHIBIT 5-1


FORECAST OF DOD QUALITY ENLISTMENT SHORTFALL
250
225
200
175
150
125
NUMBERS IN THOUSANDS
DEMAND
SUPPLY
MALE HIGH SCHOOL GRADUATES
MENTAL GROUPS 1, 11, 111
77
78
79
80
81
82
83
84
85
YEAR

Oriented Basic Skills (JOBS) program is scheduled to commence pilot operations in San Diego, California, in February 1979. Its primary goal is to provide Fleet personnel capable of reading, learning and executing the basic technical skills to "fight" and maintain our advanced and highly technical Navy weapon systems.

Associated with these factors is a current shortfall of Aviation Storekeepers (AKs). In 1974/75, the AK rate was overpopulated at 125% of manning requirements. Management actions to correct this overpopulation resulted in the AK career force experiencing a stagnation of promotion opportunities, a loss of reenlistment incentives, and a concerted effort to attract personnel into other rates. While these actions brought the career force into temporary balance, the striker (on the job training) and school inputs virtually ceased due to the "closed-rate" situation. The effect virtually undermined the root structure of the AK rate. Today, sea billets are manned at the 87% level and shore billets at the 82% level which is a modest improvement over the low point experienced in FY 77. The get-well program calls for 100% quantity manning by mid-1981, if no training cuts are levied against the rate in 1979-1980. However, the quality factor of the AK rate will not get well until mid-1983, when experienced Petty Officers are available to fill projected manning levels. Currently, the SK (storekeeper) rate is

slightly overpopulated at 110% and there is a management effort to attract SKs into the AK rate.

Another manpower problem results from the increasing technological complexity of the "Navy of the Future," with its sophisticated weapons/assault systems, ships and aircraft. These advanced systems require that our technician cadre properly troubleshoot, bench test, and maintain the expensive black boxes that are Depot Level Reparables and ensure that RFI equipment is not cycled into NRFI status unnecessarily.

A. Functional Analysis of the Manpower Required at Washington/ICP Staff Levels

A decision to transfer DLRs to the stock fund would result in some changes of functions and manpower within the Navy Headquarters organizations. All commands involved in the management of DLRs were requested to provide their estimate of the manhours of effort being expended in budget development and execution functions. These commands were instructed to limit their input to the key management personnel who have a significant role in developing budgets and establishing budget execution plans for DLRs. Some of the functions now performed by various commands would be eliminated, reduced or increased depending upon the Command's degree of participation in the current system. Only those functions that have been identified as being subject to change are discussed in this Chapter. It should be noted that Headquarters staff

reductions would require a phase-down period to close out prior year appropriated fund accounts. It was determined that a change in funding would not change any of the responsibilities or functions performed by program management type personnel working in the provisioning or initial spares programs. Therefore, the work effort expended by these people was excluded from this analysis.

Analysis of Headquarters, Marine Corps (HQMC), functions revealed that transferring DLRs to the Marine Corps Stock Fund would have no impact upon total Marine Corps functional headquarters manpower requirements.

1. Functions that Change

A functional approach indicates changes or shifts in responsibilities in the following areas:

a. POM Cycle

. The participation of the Navy/Marine Corps Stock Funds in the POM process is rare (e.g., Prepositioned War Reserve Stock (PWRS) program input). The transfer of DLRs to the stock funds would not change the stock fund POM role but it would change the roles of the Claimants and Program Sponsors by requiring them to focus on the customer funds needed to purchase DLRs from the stock funds.

b. Number of Budgets Submitted

Currently the ICPs are required to prepare budget exhibits for 13 DLR material COGs. Stock

funding DLRs would consolidate the budget exhibits to four material COGs and result in a corresponding decrease in man-years of effort for the ICPs. The HSCs would have to budget for COSAL and Carrier/MAG AVCAL outfitting costs but not for replenishment and repair costs. Therefore, the HSC budget workload would decrease. As noted above, the focus of budget reviews at the HQMC/OPNAV/NAVCOMPT level would shift to user requirements for DLRs and the funds needed to finance these requirements.

c. Accounting and Financial Reporting

There would be a reduced accounting and financial reporting workload because of the fewer number of allotments to be administered at both the HSCs and ICPs. The HSCs would require fewer personnel to perform accounting for the reduced level of procurement appropriation (outfitting) responsibility. In addition to the reduced number of allotments, the ICP accounting workload would be reduced because stock fund accounting is less complex than that required for the procurement and O&M appropriations.

d. Accounting for Prior Year Funds

Since stock funds are apportioned on an annual basis and obligated balances can be carried forward to the next fiscal year, the work effort of accounting for prior year funds can be eliminated. However, the outfitting procurement responsibilities of the HSCs will require accounting for prior year funds.

e. Combining Procurement and Repair Funds

Under the stock fund alternative, DLR procurement and repair funds would be combined. This would result in reduced workload by eliminating the requirement for separate allotments for repair and procurement; e.g., reduces the funding limitations for SPCC from over 200 to four. More importantly, the flexibility of being able to move funds between procurement and repair should result in less work effort expended in reprogramming actions throughout the financial system.

2. Where and Why the Changes Occur

There are no changes proposed for Marine Corps Headquarters. The proposed Navy manpower changes are identified as follows:

SPCC	ASO	SEA	AIR	ELEX	SUP	MAT	OPNAV	TOTAL
(5)	(1)	(2)	(7)	(1)	4	0	0	(12)

( ) = Reductions.

A brief explanation of the rationale for these proposed changes is provided below:

a. OPNAV

There are no manpower changes. Although internal OPNAV emphasis and work efforts will decrease in the DLR procurement and O&M appropriation interfaces with the ICPs and Hardware Systems Commands, they would be offset by increased emphasis in customer APN/OPN/WPN/SCN/RDT&E and O&M budgets to buy material from the stock fund.

b. NAVMAT

There are no manpower changes. There would be a similar internal work effort shift as described for OPNAV above.

c. NAVSUP

There is an estimated increase of four manyears of effort. The interface between the ICPs and NAVSUP would increase as NAVSUP's role in budget development and execution expands with DLRs in the stock fund.

d. Hardware Systems Commands

The HSCs would no longer participate in the direct flow of funds for the procurement or repair of stock funded DLRs. This financial interface would be eliminated as the stock fund dollars would flow from NAVSUP to the ICP. NAVAIR would continue to interface with the Naval Aviation Logistics Center (NALC) in the workloading of the NARFs, although organic repair funds would flow directly from ASO to NALC. Additionally, the HSCs would be responsible for programming, budget development, budget execution and accounting for outfitting funds in the procurement appropriations.

e. Inventory Control Points

The ICPs (SPCC and ASO) will experience an overall decrease in workload as a result of reductions in the same areas described for the HSCs above. The reduction

for SPCC is greater than that projected for ASO due to the greater number of COGs managed and the financial monitoring and accounting currently required for a significantly higher number of allotments.

3. Other Significant Factors

The HSCs would continue to maintain technical responsibility for secondary items including configuration control, modifications, and field changes. The HSCs would identify program requirements to the ICP inventory manager who would develop the secondary item requirements by individual stock number. Each HSC would retain one financial billet that would be responsible for coordinating program type requirements between the HSC and the ICPs.

The responsibilities and manpower requirements of NALC in coordinating the rework of aviation DLRs and the HSCs for interim support of new weapon systems are not altered in the stock funding alternative.

B. Functional Analysis of Manpower at CINC/TYCOM/Staff Levels

Development of a staff workload Delta was difficult to achieve. Most staffs were visited and briefed on the proposed stock funding procedures. These procedures were explained in order to assist in their conceptualization of the manpower Delta, primarily at the staff level and secondarily, the unit level. As a result of these briefings, the staffs

provided manpower estimates which reflected their management concern relative to the additional functions and greater dollars they would be required to manage. Analysis by the study group of each input yielded the following:

	CINC/TYCOM ESTIMATE	STUDY GROUP ESTIMATE
CINCLANTFLT	2	2
AIRLANT	12	6
SURFLANT	4	4
SUBLANT	10	6
CINCPACFLT	2	2
AIRPAC	5	5
SURFPAC	4	4
SUBPAC	6	4
CNET	12	5
CNAVRES	5	5
HQMC	0	0
TOTAL	62	43

C. TRANSACTIONAL ANALYSIS OF MANPOWER AT SHIP/SHORE/ SQUADRON (UIC) LEVELS

The major workload impact falls on fleet units and shore establishments. As stated earlier, the study group utilized the AMS ship and Grumman aviation studies as a basis to develop an approach to defining the workload changes relative to stock funding. Field trips by members of the

study group to expand their understanding of aviation (CV/LPH/NAS/NARF) and ship (AS/AD/DD/SS) workload data provided first hand impressions that tempered the library research.

The application of a workload Delta to UIC requisition transactions and BCM actions is a statistical approach and is considered the best technique for identifying the manpower requirements.

1. The American Management Systems (AMS) Study

The basic consideration was to establish the amount of incremental work effort required to handle a DLR (currently APA funded) transaction as an NSA transaction. A transaction is defined as a requisition processing cycle. This factor was selected to ensure all functional supply and financial processing impacts were considered. After evaluating the several storekeeping functions, the AMS ship study provided the incremental work effort Delta for the following requisition transaction workload factors:

a. Non-Automated Surface Ship

An added workload Delta for DLRs of 2.0 to 3.5 manhours/week with an average of 300 annual transactions. This range of effort can be evaluated as:

2.0 MH/WK = .345 MH (or 20.7 minutes)/requisition

3.5 MH/WK = .603 MH (or 36.2 minutes)/requisition

b. Automated Surface Ship (excluding Aviation Ships)

An added workload of 3.5 manhours/week with an average of 300 annual transactions.

3.5 MH/WK = .603 MH (or 36.2 minutes)/requisition

c. From a quality aspect, the accounting storekeepers (SKs) are first class petty officers on automated ships and either first or second class petty officers on non-automated ships.

2. The Grumman Study

The Grumman aviation study for a Marine Air Group (MAG) provided a workload Delta of .375 manhours per requisition as displayed in Exhibit 5-2.

The MAG operates in an environment similar to an aircraft carrier and utilizes the same ADP system installed in aviation ships. The Delta of .375 which is in supply accounting (Exhibit 5-2) consisted of three work units: (1) supply and financial processing/AVCAL impact; (2) credit processing; and, (3) supervision. A review by the study group revealed that the two price concept was not used in the Grumman study. The application of this concept would eliminate the credit processing work unit thereby reducing the work units to two or a Delta of .250 manhours per requisition.

EXHIBIT 5-2

COMPARISON OF APA DLRs WITH THE PROJECTED NSF DLR WORKLOAD IN TERMS OF WORK UNITS (W/U) AND MANHOURS. (8 WORK UNITS = 1 MANHOUR)

NOTES	WORK ELEMENT (EXCLUDING REPAIR EFFORT)	APA DLR W/U		NSF DLR W/U
(1)	Organizational Work Center	28		28
(2)	Maintenance Control	10		10
	Requisition Expeditor	3		3
	Technical Edit	4		4
	Component Control	10		10
	HI-PRI (NORS) Espeditor	9		9
	Document Distribution	5		5
	Automated Data Processing	4		4
	Stock Control	2		2
	Supply Data Communications	10		10
(3)	Supply Accounting	2	Delta*	5
	Material Delivery Expeditor	8		8
(4)	Special Material Control	12		12
(5)	Component Control Expeditor	7		7
	Administrative Screening	4		4
(2)	Production Control	15		15
	Maintenance Analysis	4		4
(6)	Intermediate Work Center	31		31
(7)	Supply Screening	8		8
(8)	Preservation	10		10
(9)	Shipping and Receiving	10		10
	TOTALS	196 w/u= 24.5M/H		199 w/u= 24.875M/H

(Source: Grumman Corporation Study HQMC M00017-77C-0073)

*Additional total effort of 3 W/U or .375 M/H between APA DLR and NSF DLR.

EXHIBIT 5-2 (Cont'd)

NOTES

(1) Includes direct labor for removal (24 W/U), Maintenance Action Form (MAF) preparation (1 W/U) and MAF entries (3 W/U).

(2) Refers to processing of MAFs, Supply Action Forms (SAFs), and work orders; material control register entries; and Visual Item Display System (VIDS) update.

(3) NSF DLR includes additional manual recording and financial reconciliation. It is the Delta factor of +3 W/U or .375 M/H.

(4) "Special" refers to material handling characteristics, e.g., classified, hazardous, sensitive, signature controlled, etc.

(5) Refers to control of delayed carcass turn-ins.

(6) Includes MAF preparation (4), MAF handling (4), SAF preparation and handling (1), requisition (DD Form 1348) preparation (1), maintenance of work center registers (5), and direct labor for preservation/purging and Scheduled Removal Component (SRC) card preparation, as appropriate (16).

(7) Includes determining availability of NRFI carcasses, tracing/ordering missing Shop Replaceable Assemblies (SRA), etc.

(8) Includes direct labor (9), and document handling (1).

(9) Includes document preparation (1), document handling (2), direct labor for packing and packaging (5), and movement to shipping points (2). DLR receiving and transfer to disposal functions were not counted through oversight.

3. Field Visits

During the staff/activity visits, the study group encountered arguments for manhour Deltas of 10.5 to 12 manhours per transaction from some ships and TYCOMs. The major apprehension expressed was that stock funding DLRs would shift the focus of DLR utilization away from a purely operational concern to a split management responsibility for operational mission and fiscal management. The cost of this shift is perceived to be increased management and working level manpower requirements. Underlying this concern is the lack of quality and quantity manning to accomplish the myriad of "routine" tasks currently mandated.

Compounding this situation is the problem of inadequate space and support facilities available to accommodate further augmentation of the crew in aircraft carriers.

Various manpower estimates were obtained from staffs/commands representing their perceptions of workload impacts on end use operating activities. These estimates varied widely depending upon each staffs understanding of the proposed stock fund procedures and perception of the amount of added workload.

4. Selection of Manpower Delta

The Grumman and AMS studies yielded a Delta range of .250 to .603 manhours per requisition. For the

purpose of the DLR study, a Delta factor of .5 manhours per requisition was used. A formal manpower study of this Delta has never been conducted. The Delta is considered to be a reasonable best estimate for application to the requisition/BCM transactions.

A flow chart illustrating the application of the Delta to the UIC transaction volume extracted from the ICP data is shown in Exhibit 5-3.

5. Application of the Manpower Delta to Transactions

Exhibit 5-4 provides the study group estimate of UIC manyear requirements by Major Claimant. It displays the full range of Deltas (.250, .500, and .603 M/H per requisition) to indicate the manpower estimates for stock funding. Appendix Q, Tab 3, details the specific distribution of manyear requirements using .5 MH as the Delta factor.

D. <u>Annual Manyear Costs for Stock Funding DLRs</u>

The manyear estimates displayed in Exhibit 5-4 are complicated not only with the quality and quantity factors discussed earlier, but with a requirement to code specific AK and SK billets for financial management into the proper Navy enlisted classification code to ensure that incumbents are provided appropriate fiscal training and designation. A Navy financial curriculum does exist for the SK rate and it can be expanded to incorporate the AK rate. Lead time of approximately 12-18 months would be required in order to develop an adequate and continuous output.

EXHIBIT 5-3

STOCK FUNDING MANPOWER DELTA FOR TRANSACTIONAL ANALYSIS

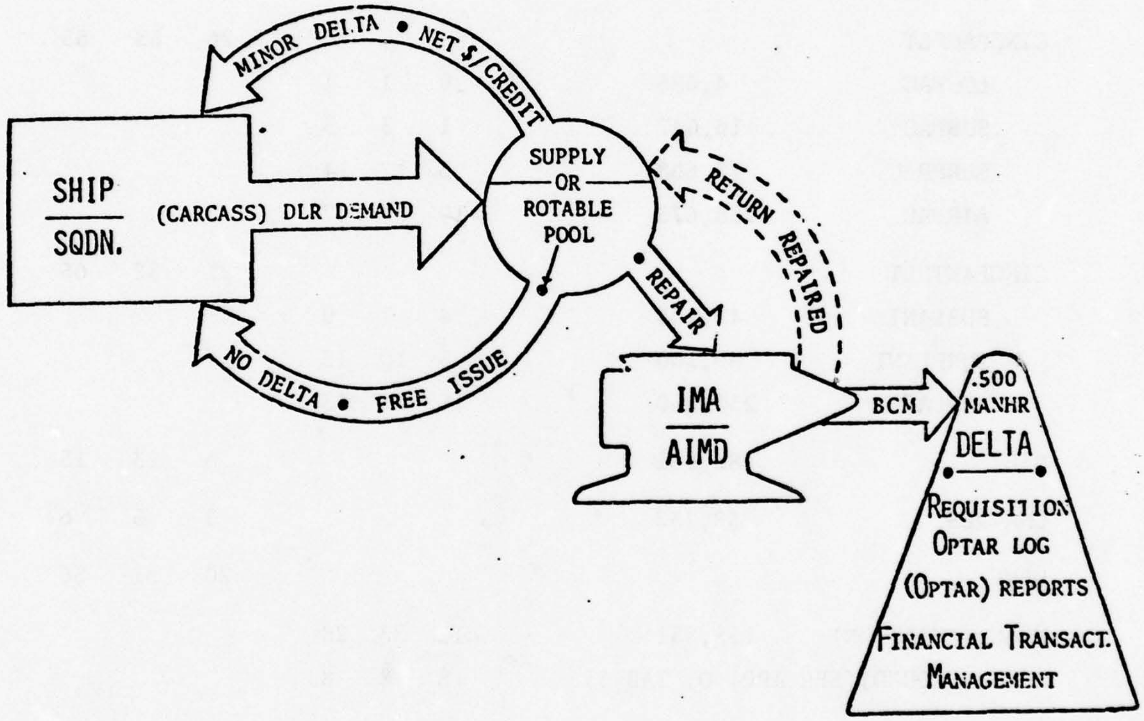


EXHIBIT 5-4

CLAIMANT OPERATING ACTIVITY MANPOWER DISTRIBUTION

CLAIMANT	TRANSACTIONS (2 YEARS)	SUBTOTAL MANYEARS			TOTAL MANYEARS		
MANHOUR FACTOR PER REQUISITION(DELTA) =		.25	.50	.603	.25	.50	.603
CHNAVMAT					14	24	27
R&D LABS	4,468	0	1	1			
NAVAIR	83,360	12	19	21			
NAVELEX	5,462	0	1	1			
NAVSEA	22,814	2	3	4			
NAVSUP	1,514	0	0	0			
CINCUSNAVEUR	27,543				2	4	5
CINCPACFLT					26	55	65
LOGPAC	4,686	0	1	1			
SUBPAC	16,647	1	3	3			
SURFPAC	77,608	6	12	14			
AIRPAC	256,673	19	39	47			
CINCLANTFLT					27	52	65
SUBLANT	47,185	4	7	9			
SURFLANT	69,200	5	10	13			
AIRLANT	230,160	18	35	43			
CNET	86,981				6	13	15
CNAVRES	32,732				2	5	6
USMC					20	31	36
USMC (AVIATION)	155,851	12	23	28			
(GROUND)(SEE APP. Q, TAB 3)		8	8	8			
FAADCs (SEE APP. Q, TAB 3)					8	8	8
TOTAL					105	192	227

Detailed analysis is displayed in Appendix Q, TAB 3.

NOTE:
1. Computation example for .50 M/H Delta: Transactions divided by 6,640 (1,660 productive M/H per year x 2 actions per hour x 2 years) = the manyear estimate.
2. The Study Group recommends application of the .50 M/H per requisition for manhour costs and has utilized that factor in Appendix Q.

If customer funding is allocated to the operating unit level, appropriate fiscal education and training should be provided to ensure adequate management of the increased fiscal responsibility. For example aviation units, which do not have Supply Corps Officers assigned could identify the Material Control Officer for this training. Another benefit would be the early identification of Line and/or Supply Corps Officer personnel for advanced comptrollership education and assignments.

The total Department of the Navy personnel requirement for stock funding DLRs is estimated to be 223 manyears distributed as follows:

	Manyears
Washington/ICP Staff Levels	(12)
CINC/TYCOM/Staff Levels	43
Ship/Shore/Squadron Levels	192
TOTAL	223

This annual manyear requirement equates to $2.814 million and is displayed in Exhibit 5-5.

EXHIBIT 5-5

ESTIMATED ANNUAL MANYEAR REQUIREMENTS FOR STOCK FUNDING DLRs

	CATEGORY	MANYEARS	$ COSTS (Million)
Washington HQs/ICPs	1	(12)	(.318)
Fleet HQs	2	43	.699
Navy Field Activities*	3	94	1.134
Navy Operating Forces*	4	67	.888
USMC HQ	N/A	0	0
USMC Operating Forces*	4	31	.411
Totals (Net)		223	2.814

Category 1 = GS-12 (Step 4) = $26,513 per annum.

Category 2 = GS-7 (Step 5) = $16,247 per annum.

Cagegory 3 = GS-5 (Step 4) = $12,067 per annum.

Category 4 = Military, E-6 (NAVCOMPT 035750) = $13,258 per annum.

Civilian $ = Salary x 110.15% to include retirement, health, and insurance benefits.

* Refers to the study group estimates previously discussed and contained in Appendix Q, TAB 3, which utilizes .500 M/H per requisition.

NOTE: 1. Civilian personnel would be utilized in shore activities, military personnel at sea and overseas activities.

2. Fleet HQ staffs were allocated an average grade level of GS-7 in order to adjust grade requirements to reflect both budgeting and accounting Deltas.

E. <u>One Time Manyear Costs for Modifying Data Systems</u>

Stock funding DLRs will require a one time conversion cost for ADP systems. ADP software modifications to ASHORE/AFLOAT programs, including accommodation for Shipboard Non-Tactical ADP Program (SNAP) applications, is estimated to require 44.00 to 60.25 manyears. This workload is distributed as follows:

	MANYEARS	
UADPS(SP) Financial	1.00 to 1.25	(NAVSUP)
UADPS(SP) Supply	12.00	(NAVSUP)
SUADPS (Shipboard Systems)	2.00 to 18.00	(NAVMASSO)
UICP	6.00	(NAVSUP)
Level II & III Activities	12.00	(NAVSUP)
NOMIS	4.00	(NAVSEA)
USMC	7.00	(MARCORPS)
TOTAL;	44.00 to 60.25	

The cost of the manyear effort involved in this task is estimated to be:

$22,500 per M/Y for a GS-11 (Step 6)

$22,500 x 44 M/Y = $990,000

$22,500 x 60.25 M/Y = $1,355,625

This estimate does not include $200,000 for changes required at NARFs, and modification of internal procedures at the ICPs, stock points, user activities and related staffs. Additional information on data system changes is contained in Appendix O.

IV. SUMMARY

Selection of the stock funding alternative would impose an additive workload on customer activities which would require an additional 223 personnel and a one time cost to modify ADP systems of $1.4 million.

CHAPTER 6

EVALUATION AND RECOMMENDATIONS

I. INTRODUCTION

The preceding Chapters and associated Appendices have described the current system for funding the procurement and repair of DLRs; the recommended procedures for each of the two alternatives (including an operating description of these procedures); and, identified the impact of these procedures for each alternative. The procedures were developed in order to provide a basic foundation for the overall evaluation of the alternatives as compared to the current system. This Chapter will present the evaluation and recommendations.

II. EVALUATION OF ALTERNATIVES -- MARINE CORPS

Throughout the study it was difficult to assess equally the impact of most of the areas discussed for the Marine Corps and Navy spares programs. It would be even more difficult to evaluate concurrently the alternatives as they apply to each program. The Marine Corps spares program is relatively small and management is highly centralized. The Navy spares program is both large and complex and management is decentralized to the extent that many organizational activities are involved. Although Marine Corps aviation programs are supported in Navy appropriations and are impacted by any changes to Navy spares management, the area of comparison is

the PMC and O&M,MC appropriations funded spares programs. Therefore, the evaluation of the alternatives for the Marine Corps is presented separately.

The Marine Corps appears to be well served by the current system of spares financial management. The current management organization is highly concentrated and centralized within both the HQMC and the ICP. For example, the secondary item depot level reparable requirements are developed at the ICP for both provisioning (outfitting) and replenishment. Financial computation of the spares requirements is accomplished by a semi-annual stratification which serves as the foundation for the determination of replenishment needs, and the Provisioning Subsystem of MUMMS which calculates the outfitting/initial issue spares requirements. Both of these critical functions are accomplished at the ICP. General guidance and oversight of the requirements determination process is provided by the Installation and Logistics (I&L) Department at HQMC. Requirements to be satisfied from procurement are currently financed by the PMC appropriation. The budget for these requirements is initially developed by the ICP and passed to HQMC (I&L Department) for review and inclusion in the appropriation budget submission. The requirements determination and budget development for Marine Corps wholesale level stock funded material follows a similar processing pattern.

DLR requirements to be satisfied from a repair/rebuild process at one of the two organic Depot Maintenance Activities (DMAs) are currently financed by the O&M,MC appropriation. In a manner similar to the procurement procedure, the requirement is developed by the ICP, assets identified, and the rebuild program forwarded to HQMC for review, approval and funding. The HQMC review actions take place predominantly within the I&L Department. Budget preparation for PMC, O&M,MC, and the Marine Corps Stock Fund (MCSF) are all accomplished within HQMC under the Deputy Chief of Staff I&L who is the appropriation sponsor for all three categories of funds. The budgets are all prepared in the Programs and Financial Management Branch of the I&L Department.

The PMC reprogramming threshold of $5 million provides financial flexibility to the Marine Corps spares program not available to the other services because of the low dollar value of each line item. This results in reprogramming flexibility that is unique to the Marine Corps due to the relative size of the program in relationship to the other services. Although not required, this flexibility would be even further expanded under the stock funding alternative.

Mission based budgeting cannot be easily attained in the present budgetary arrangement. Actual operating costs being experienced within the FMF do not include the DLRs, except for their repair at the organization (1st and 2nd

echelons) and field levels (3rd and 4th echelons).

Repairable outfitting or system stock procurements are also not presently expensed, displayed, nor related to mission. The O&M,MC expenditures in support of DLR rebuild are also not amenable to a mission type display. Conversely, financing by the stock fund would provide the ability to relate O&M,MC appropriation outlays to mission through data collection in the standard cost accounting systems. It is noted that a major revision to the data accumulation process now employed would be required.

As related to the Marine Corps, the study concluded that the stock fund alternative establishes the requirement for a small number of additional enlisted personnel with the FMF service support organizations. These few supply and accounting personnel would be capable of processing the workload increases that stock funding DLRs would necessitate. No manpower increases or decreases are forecast at the HQMC or ICP, although realignment within these organizations is probable.

It is acknowledged that the current Marine Corps management and financing arrangement is both viable and functional. The major disadvantage to the current system is its inability to relate expenses to mission. Additionally, programmatic decisions made in the existing framework of the POM which impact adversely upon funds allocations to the DLR program in either the O&M,MC or PMC accounts could result in

the underfunding of system/customer needs, or an imbalanced condition between the procurement and repair accounts. These same negative conditions could also arise during the budget review cycle under existing arrangements. The stock fund alternative would eliminate such threats at the system level.

Financing flexibility, while currently significant, would be slightly enhanced under the stock fund alternative.

FMF workload would be increased moderately but with greater customer cost consciousness a likely offsetting positive result.

The management realignments and computer program redesign necessary to accommodate a system revision necessary to accommodate the alternatives are not insignificant.

The single appropriation alternative appears to offer no advantage to the Marine Corps, except to enable more flexibility at the ICP level in reaching the fix or buy decisions required in inventory management.

In summary, after consideration of the relative merits of the competing alternatives, the current system provides the Marine Corps with a viable management organization and efficient financial arrangement which effectively support its current needs. Its retention is endorsed, particularly if refinement could be made which would more fully accommodate mission based budgeting.

Adoption of the stock fund alternative is considered feasible and practical for the Marine Corps and could be implemented without major turbulence. Advantages resulting from its adoption, while not compelling, do exist and provide some opportunity for overall logistic systems improvement. Conversion costs in terms of personnel effort, time, and financial outlay must of necessity be judged against the opportunity for system improvement.

Based upon the utility of the current system, the conversion to the stock fund, notwithstanding its merits, is not recommended for the Marine Corps.

III. EVALUATION OF ALTERNATIVES--NAVY

Throughout the study group effort several major elements of DLR spares management were evaluated. These included the responsibility for requirements determination, financial management flexibility, financial workload, economy/cost effectiveness, and mission budgeting. These issues relate to all alternatives and, in essence, represent the matrix for evaluation of the alternatives.

A. DLR Spares Requirements Determination

The elements of DLR spares requirements determination consist of interim support for new systems, establishment of the initial allowance lists, follow-on outfitting, calculation of the replenishment and repair requirements, and the financial management system for obtaining funds approval/

allocation to support the requirements. Interim support is the responsibility of the contractor and the HSC end item manager assisted by the ICP. Establishment of initial allowance lists involves the combined responsibility of the HSCs, ICPs, Fleet user and frequently the contractor. Calculation of the individual item requirements and dollars required for follow-on outfittings, replenishment and repair of DLRs is the responsibility of the ICPs. In executing these responsibilities the HSCs provide substantial end item program planning data to the ICPs for use in calculating the replenishment and repair requirements. Additionally, an extensive effort is required by all involved activities to workload the repair requirements at organic depots. Since aviation DLR repair constitutes approximately one half of the aircraft rework program, workloading the NARFs is substantially the most difficult task in scheduling DLR organic depot repair.

In evaluating the current system and the alternatives it should be clearly understood that none of these basic responsibilities would change as a result of any change in the financial management system. Specifically, except for the issues of management control of funds and financial management flexibility, the determination of items and dollars for interim support and initial allowance lists (including initial support) would neither improve nor deteriorate by changing the system. The basic process for determining replenishment and repair

requirements for individual items as well as workloading would not change. However, the management system for obtaining funds approval to support these require- ments would change. In the stock funding alternative, the role of stock fund customers in requirements determination would not expand beyond that which is currently required. The basic issue in DLR requirements determination is one of evaluating the changes which would occur in financial manage- ment of the spares program and the change in the funds control procedures at the Headquarters and ICP levels.

B. Management and Financial Flexibility

The current system provides Headquarters manage- ment, especially in the POM/programming phase, the option of balancing the funding for spares requirements and the funding requirements for other programs. Although this option is not eliminated by either of the alternatives, it does become less viable depending upon the degree of change in the financing system for spares. Since the stock funding alternative would shift funding to customer accounts, the Headquarters option of adjusting funding to other programs from the spares account would be greatly restricted. A closely related issue is the control of funds during program execution by Headquarters managers. In the same manner, increasing the financial flexibility within the spares program would result in a decrease in the control of funds by the several managers

currently involved in the present system. The issue, therefore, becomes one of evaluating which aspect of flexibility is the most desired. In the total context of spares financial management the current system has consistently resulted in underfunded programs and an inability to respond rapidly to changing requirements. Based on past performance it is unlikely that much improvement can be expected in spares availability except through management improvements which provide full funding of the requirements and sufficient financial flexibility to respond to changes required during program execution.

C. <u>Financial Management Workload</u>

Workload implications were a prime concern expressed from the beginning of the study. The study group concluded that workload changes presented by the two alternatives are isolated in the financial management area. The two alternatives have different workload implications at the Headquarters, ICP and user levels. The single appropriation alternative reduces workload somewhat at both the Headquarters and ICP level by reducing the number of budgets to be managed. The stock fund alternative would also decrease workload at the Headquarters and ICP levels by somewhat more than the single appropriation. This alternative, however, would increase the customer/user workload. As discussed in Chapter 5, the additional workload would be significant in

terms of an overall Navy requirement but it would be widely distributed and would require only small increases to individual activity manning.

D. Economy

The study group analyzed three aspects of the economy issue relative to both alternatives. These aspects can be grouped into user behavior, conversion cost, and efficiency categories. User behavior refers to expected reactions by users of DLRs to the pricing mechanism inherent in the stock fund but absent in the current system. Although no changes in user behavior could be expected with the single appropriation alternative, a series of possible changes in user behavior could occur in the stock funding alternative. On the positive side the pricing mechanism could stimulate more discipline in the requisitioning and carcass return operations. These areas have consistently been criticized in audit reports. On the negative side concern was expressed that increased cannibalization to avoid "paying" for a DLR or sub-component, unauthorized repairs, and delayed maintenance would occur. The only hard evidence available in this area relates to the discipline in the requisitioning process. After the large migration of aviation consumables in 1969 the amount of migrated items requisitioned decreased dramatically. Although other factors were at work, it appears that the requirement to pay for the items tended to decrease demand.

The issues of carcass returns and maintenance discipline are speculative. However, the sanctions for breaches of maintenance discipline, being more severe, should minimize any dysfunctional aspects of the pricing mechanism.

Conversion costs are simply the costs in manpower, money, and disruption incurred by changing the system. The single appropriation alternative would incur minimal conversion costs. Since the stock fund alternative would require more manpower and extensive computer software changes, the conversion cost would be greater. These additional costs are detailed in Chapter 5. Although these costs are significant when considered in isolation from the cost of the DLR spares program, the dollar value of the program is so large that a very small percentage improvement in lower user demand or increased DLR availability would far outweigh the impact of these additional costs.

Efficiency considerations focused on the impact of both alternatives on the depot repair program and the headquarters operations. Since the single appropriation and the stock fund alternatives provide for repair vs. procure trade-offs both would ensure a fully funded repair program. With this assurance depot repair could be executed with more efficiency than can be achieved under the present system. Similarly, the reduced fragmentation inherent in both alternatives (more with the stock fund) suggests more efficient

headquarters operations could be achieved by changing the system. Another aspect of efficiency is accountability for performance. Under the current fragmented financial management structure there is little, if any, accountability. Both the single appropriation and stock fund alternatives provide a structure to clearly establish accountability for the spares program throughout the PPBS cycle.

E. Mission Budgeting

The study group was unable to assess the degree to which mission budgeting may become a requirement in the future. In response to the OSD tasking, however, the stock funding alternative offers the only satisfactory alternative which will permit the budgeting of spares requirements on a mission basis. As discussed in Chapter 3, the common usage of some DLRs among two or more weapon systems and the inability to estimate, budget and execute the spares program on a weapon system basis without substantial additional loss of financial management flexibility means that the current system and the single appropriation alternative are not adaptable to mission budgeting principles.

IV. CURRENT SYSTEM OF NAVY DLR SPARES MANAGEMENT

The current Navy system of DLR spares financial management is characterized primarily by a split between the responsibility for spares inventory management (ICPs) and the funds control responsibility (HSCs). This split results in

funds control restrictions being imposed on the ICPs (especially SPCC) which inhibit effective inventory management. It appears that many of these restrictions are fostered by the current fractionization of responsibilities in the programming, budgeting and execution phases of financial management. The necessity for management involvement by all the organizations who now participate appears to be driven by the financial management structure. Stated another way, the financial management system is driving the program rather than being responsive to the requirements of the program.

The current system has been used with only minor changes for several years and during that period has generally failed to achieve the level of satisfaction that would dispel criticism. Underfunding of both procurement and repair requirements has generally been chronic rather than the exception. Responsive reaction to changes in requirements which are inevitable in a program of this size and complexity have been difficult and sometimes impossible to achieve. Additionally, the repair of DLRs represents the primary source of RFI units and although the importance of fully funding this requirement is generally recognized there is no mechanism for funding trade-offs within the spares program to correct underfunding or to fund emergent repair requirements. Program reductions in other areas of O&M accounts to provide funds for this purpose are generally difficult to achieve.

In summary, the current system requires justification of the overall funding requirements for the spares program in 12 different budget line items and four appropriations and involves many different organizations and management levels of review. Execution of the program through the existing financial structure is even more fragmented. Reprogramming to adjust to changing requirements can be made from other program areas (within thresholds), however, past history does not indicate a successful record in using this limited but available means of augmenting spares funding if necessary. Although the reasons for this are speculative, probably the primary reason is a basic unwillingness by the many management levels involved to provide funds from an on-going program, where the impact may be easy to understand, to a spares support requirement whose impact is difficult to analyze. Centralized management to ensure the maximum use of the current financial system combined with a substantial reduction in the restrictions on the ICPs offers probably the only avenue for improving financial flexibility in the current system. Short of this, there is little reason to expect much improvement over that achieved in the past few years.

V. SINGLE APPROPRIATION ALTERNATIVE

The establishment of a new appropriation for funding the procurement and repair of DLRs is not recommended. The recommended option would establish a new budget activity in WPN

and OPN for the procurement and repair of DLRs. Since it is unlikely that there would be any real objection from OSD/OMB or the Congress to the Navy establishing these budget activities for the procurement of DLRs, the issue is the inclusion of repair funding. With the inclusion of repair funding, the single appropriation alternative offers a substantial improvement in financial management flexibility over the current system. Without it, the improvement that could be expected would depend on the degree of increased centralized management oversight to ensure adequate funds initially and reprogramming as necessary to adjust to changing requirements. These actions combined with a substantial reduction in funding restrictions at the ICPs would still provide a significant improvement over the current system.

Whether the proposal to include DLR repair funding in a procurement account would be approved by OSD/OMB or the Congress is highly speculative. These repair costs are considered expense not investment and in the past all efforts to include this type of cost in procurement appropriations have not been successful.

VI. STOCK FUND ALTERNATIVE

Although a number of changes in current organizational relationships and procedures would be required, the study effort clearly established that stock funding is feasible. The question of whether it is desirable to do so must be based

on a judgment as to whether the benefits outweigh the cost and impact of these changes.

The study clearly establishes the key to making this judgment. It is deciding whether or not the stock fund advantages of greater management and financial flexibility, improved economy, and adaptability to mission budgeting outweigh the disadvantage of increased financial workload at the customer level.

The stock fund capability to fund emergent requirements in a shortened budget leadtime (because of its non-appropriated nature) plus the real time capability of the stock fund manager to reprogram any amount among Budget Projects are compelling advantages. The ability to trade-off between procurement and repair further enhances these advantages. The potential for improved supply discipline resulting from the buyer-seller relationship and the ability to establish clear accountability for performance are very desirable. Depending upon future guidance, the stock fund offers the only viable way to assign spares costs to mission areas.

When compared to the modest increase in financial workload the advantages of stock funding are persuasive.

VII. CONCLUSION

It is highly unlikely that much improvement in the availability of DLRs to the customer when needed or in the efficiency of spares program management can be achieved unless

the total spares program is adequately funded and additional financial management flexibility in the utilization of available funding resources is provided to the spares program managers. The alternative of combining DLR replenishment funding and repair funding in one P-1 line of existing Navy appropriations would provide a substantial improvement in flexibility in the use of appropriated funds. Therefore, it is concluded that this alternative is preferable to the current system.

The stock funding alternative would provide even greater flexibility because there would be no reprogramming threshold between "new" (Initial) DLR funds and replenishment/repair DLR funds as would of necessity exist in the Single Appropriation concept. In addition, there would be no barrier to the reprogramming of available funds (if necessary to meet emergent requirements). Of much more significance, however, is the capability of the stock fund to acquire additional funding authority at any time such need can be demonstrated. The virtually "fully funded" nature of stock fund operations and the financial management flexibility (as well as the advantages listed in paragraph VI) lead to the conclusion that the advantages of the stock fund alternative would provide a substantially greater opportunity for improvement in DLR spares program management than can be achieved through changes in the current system or implementing the Single Appropriation alternative.

VIII. RECOMMENDATION

Because of the potential for providing improved DLR availability in the supply system, the stock fund alternative must be recommended. However, the complexity of the change-over inheıent in this option argue for a less than full scale implementation to provide a controlled environment to quantify the financial workload and to refine procedures. Accordingly, it is recommended that non-aviation DLRs be stock funded on a prototype basis. This segment of DLRs is sizeable enough (20% of the procurement/repair dollar value) to produce a valid result and has the additional advantage of eliminating the greatest number of restrictive funding sources. In addition, non-aviation DLRs offer the greatest potential for increasing the return of NRFI carcasses (allowing for less costly repairs vice new procurements).

A test of lesser scope (i.e., one cog of material) is not considered appropriate because it would require operating a dual system at SPCC with the attendant increase in management cost and complexity.

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

MANPOWER, RESERVE AFFAIRS AND LOGISTICS

SR

OCT 3 1978

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE ARMY (IL&FM)
ASSISTANT SECRETARY OF THE NAVY (MRA&L)
ASSISTANT SECRETARY OF THE AIR FORCE (RD&L)

SUBJECT: Stock Funding of Depot Level Reparable Components

By memorandum, subject as above, dated 9 May 1978, a DoD Steering Group was established for the purpose of monitoring study efforts to determine the feasibility of extending the stock fund concept to depot level reparable components.

The Steering Group, composed of Service and Office of the Secretary of Defense representatives, has developed the enclosed set of basic evaluation criteria, assumptions and study group tasking guidelines to be followed in analyzing the feasibility of stock funding of reparable components. It is requested that each addressee initiate necessary action to insure that ongoing or planned reviews of the proposed reparables stock funding concept incorporate the Steering Group products as an integral part of the analysis of this proposal.

It is the consensus of the Steering Group that each Service should independently review the feasibility of stock funding of reparables. The Navy has already begun an extensive study effort which should establish the Navy position on this subject and may be beneficial in resolving some broader aspects of the reparables stock funding review.

It is requested that the Navy provide the results of their effort to the Steering Group upon completion. The Army and Air Force should initiate preliminary analyses of the stock funding of reparables concept based on the working group tasking guidelines. Completion of these initial efforts should be planned to coincide with the anticipated completion of the Navy study in approximately 60 to 90 days.

Additional meetings of the DoD Steering Group will be convened upon completion of the Services' efforts to review these studies and to develop recommendations for future actions.

Enclosures
As stated

cc: ASD(Comptroller)

Paul H. Riley

PAUL H. RILEY
Deputy Assistant Secretary of Defense
(Supply, Maintenance & Services)

Stock Funding of Depot Reparables

Basic Assumptions

I. Existing Stock Fund Directions and Regulations Will Remain in Effect

II. Nonconsumable Item Integrated Materiel Management Assignments Will Remain in Effect

III. Significant Revisions to Current Supply Management Concepts, Policies, Systems and Procedures Would Not Be Required by Implementation of a Stock Fund Approach to Depot Reparables Management

Criteria for Evaluation of Stock Funding of Depot Reparables

I. **Provide Improved Financial Management**

II. **Improve Supply Management and Control**

III. **Better Identify Funding to Missions and Weapons Systems**

Stock Funding of Reparables

Working Group Tasking

Feasibility

I. Legal Aspects

Describe any legal restrictions to the stock funding of reparables. Identify what must be done (proposed legislation) to overcome these.

II. Financial/Resource Considerations

A. Determine the approximate dollar impact on individual appropriations.

B. Determine the alternative methods of reimbursement for new procurement (initial issue and replenishment) and overhaul costs.

C. Explore the relationship between the stock fund and the industrial fund.

D. Identify appropriate pricing and credit return policies.

E. Identify the financial benefits and costs of stock funding of reparables.

F. Determine how the fund will be initially financed.

G. Determine the manpower impact of stock funding of reparables.

H. Identify any reparable type items which should be excluded from the stock fund.

I. Identify potential improvemnts in relating funding to missions and weapons systems as a result of stock funding of reparables.

III. Supply Management Aspects

A. Determine whether the stock funding of reparables will result in improved management, control and supply discipline. Include review of:

1. Impact on management and visibility.

2. Slow moving items in the stock fund.

3. A comparison with current management systems.

B. Identify the impact on field (intermediate) level supply management.

C. Identify the impact on present reparables wholesale management systems and computational techniques, including Automatic Data Processing systems and new weapon systems.

D. Determine impact of stock funding on organizational fragmentation and duplication.

E. Identify significant implementation problems and possible solutions.

F. Describe new interfaces with other functional areas--maintenance, transportation, etc.

IV. Customer Impact

A. Determine whether customer level managers can accomplish their greater role in reparables management under a stock funding approach without significantly greater personnel and financial resources.

B. Determine probable impacts on Not Mission Capable--Supply rates and other supply performance measures.

V. Maintenance Impact

Determine the impact on intermediate and depot maintenance of stock funding of reparables.

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

IN REPLY REFER TO

30 JUN 1978

From: Chief of Naval Operations
To: Distribution

Subj: Study Directive for Migration of Depot Level Reparables (DLRs) to the Navy Stock Fund (NSF)

Ref: (a) CEB Decision Memorandum Ser 09/501228 of 17 May 1978

Encl: (1) Guidance for CNO Studies and Analyses
(2) Working Group Manning Requirements

1. Title. Migration of Depot Level Reparables (DLRs) to the Navy Stock Fund (NSF).

2. Type. CNO In-house Study without Contractor Support.

3. Background. Per reference (a), initiation of subject study was approved by CNO Executive Board on 3 May 1978. This study generated from awareness that NSF is more flexible in funding spare parts requirements than the appropriations process. Further, there is interest external to the Navy which has prompted a need for an educated Navy position: the GAO requested the Navy to explain why Type Commanders have not been given financial management responsibility for appropriations funded spares as they now have for NSF items; the Army completed a study which recommends stock funding DLRs; and OSD initiated a feasibility study of the concept.

4. Expected Impact

a. The CNO and the CMC are the intended primary users of the findings, recommendations, and other products from the study. Additionally, the study may be used by Congressional Committees, OSD, and other services in evaluating use of this concept throughout DOD.

b. The study results will be needed by 28 September 1978.

c. Completion of the study by the above date will enable the CNO to fulfill the Navy commitment to the GAO and will allow programming, if necessary, in POM 81.

5. Objective. To determine the cost effectiveness of financing the procurement and repair of depot level reparables within the Navy Stock Fund.

6. Specific Guidance

a. Scope. This study will evaluate how Navy Inventory Control Point centrally managed depot level reparables would be managed within the NSF and, as an alternative, how DLRs would be managed using a single appropriation for both procurement and depot level repair.

b. Critical Assumptions

(1) That the regulations governing NSF would remain in effect.

(2) That DLR procurement and repair resources currently programmed in FY81 will be available for transfer to customer O&MN accounts.

(3) That manpower resources programmed for financial management of DLR's in FY 81 will be available for redistribution as necessary.

(4) That a phased implementation of the concept is feasible.

c. Alternatives

(1) In addition to NSF financing mechanism, the study will consider the procurement and depot repair of DLRs within a single appropriation.

d. Constraints

(1) POM-80 resources will not be exceeded.

e. Effectiveness Criteria. The measure of effectiveness to be used in this study is improvement in material responsiveness without exceeding baseline costs. Material responsiveness is the percentage of time that material can be provided off the supply system's shelves.

f. The analysis shall observe the guidance of enclosure (1) for the treatment of assumptions, key parameters and qualitative measures, and for the documentation of the methodology used.

g. The factors which are important to the analysis shall be explicitly identified in the report. (The scope of the analysis shall be so defined that the results of the study provide to the decision-maker a lucid analysis of the most appropriate set of alternatives.)

7. Coordination and Review

a. The sponsor of this study is OP-04.

b. The Project Officer is Mr. Robert J. Moloney, GS-17, MAT 01B, (202) 69-28564 or autovon 22-28564.

c. The Advisory Committee, chaired by OP-090, will be composed of Flag Officer or civilian equivalent representatives from OPs 01, 02, 03, 04, 05, and 090. CNM, CMC, CNAVRES, CINCLANTFLT, CINCPACFLT, and President, CNA, are invited to participate as members. It is requested that these offices and commands forward to the Project Officer their nominations for advisory committee membership, and points of contact if not members of the study group.

d. The study group will consist of the working group listed in enclosure (2). Designated commands, agencies, and offices are requested to provide the names of nominees to the Project Officer not later than 30 June 1978.

e. The Director, Systems Analysis Division (OP-96), shall conduct a technical review to monitor progress and ensure quality of the study. During the course of the study, this effort shall review the working papers and reports for validity and completeness and shall provide an independent technical evaluation of the final report. Results from the review shall be promulgated to the Advisory Committee and the CNO Project Officer by OP-96.

f. The Study Monitor is LCDR Glenn I. Downer of OP-96.

8. Reporting

a. A study plan is to be submitted to the Advisory Committee by 11 July 1978.

b. The Project Officer shall submit Monthly Progress Reports to OP-966 in accordance with current instructions.

c. Meetings of the Advisory Committee shall be called by the Chairman at appropriate times to provide guidance to the study group and to review and evaluate study progress and trends in accordance with reference (a).

d. A draft final report is to be submitted to the Advisory Committee on 13 September 1978.

W N Small

WILLIAM N. SMALL
Director
Navy Program Planning

Distribution List:
(See Next Page)

Distribution List:
CMC
CHNAVMAT
CINCLANTFLT
CINCPACFLT
CNAVRES
CNO (OPs 01, 02, 03, 04, 05, 06, 090, 96, 92)
PRESIDENT, CNA
COMNAVSUPSYSCOM
COMNAVAIRSYSCOM
COMNAVELEXSYSCOM
COMNAVSEASYSCOM
DIRSSP

Copy to:
CNO (OPs 002, 008, 009, 00K, 09R, 906, OPA)
COMOPTEVFOR
OSD (MRA&L)
OSD (COMPT)

GUIDANCE FOR CNO STUDIES AND ANALYSES

1. The assumptions which are of great importance to the outcome of the analysis shall be clearly stated in the introduction to the report. Also, at the beginning of each chapter, annex, or appendix, the complete set of assumptions which are applicable shall be listed. The analysis shall determine the effects of alternative assumptions when these are critical to the study results.

2. The analysis shall identify the key parameters (weapons systems effectiveness values, enemy tactics) which greatly affect the study results. Best estimates shall be used for the values of these parameters; in addition, greater and lesser values spanning the range of reasonable values for each parameter shall be used to determine the sensitivity of the study results to changes in these key parameters.

3. The analysis shall reflect the importance of qualitative factors.

4. A clear and concise description of each model or simulation shall be included in an appendix to the report unless such description is available in an already published document and is referenced in the report. This description shall explain in qualitative terms (including a logic diagram) the general methodology which provides the basis for the model. Detailed design specifications for each model, or reference to a permanent OPNAV file in which these design specifications are held, shall be included in the permanent files of this study.

MANNING REQUIREMENTS FOR MIGRATION OF DEPOT LEVEL REPARABLES (DLRs) TO THE NAVY STOCK FUND (NSF)

COMMAND	RANK	NO.	DURATION	SPECIALITY
OP-01	CAPT/CDR or CIV. EQUIV.	1	Full Time	Organizational Design/ Manpower Planning
OP-03	CDR/LCDR or CIV. EQUIV.	1	Part Time	Shipalt, Programming and Budgeting
OP-04	CDR/LCDR or CIV. EQUIV.	1	Part Time	FMP/Overhaul Programming
OP-05	CDR/LCDR or CIV. EQUIV.	1	Part Time	A/C Rework Programming
OP-92	CAPT/CIV. EQUIV.	1	Full Time	Programming, Budgeting Policy & Procedures
OP-92	CDR/CIV. EQUIV.	1	Part Time	Fleet O&MN Programming Budgeting
CNM	CDR/LCDR or CIV. EQUIV.	1	Part Time	NIF Management
CNM	CDR/LCDR	1	Full Time	Management Planning
COMNAVAIR	CDR/LCDR or CIV. EQUIV.	1	Full Time	NARF Management Systems
COMNAVSEA	CDR/LCDR or CIV. EQUIV.	1	Full Time	Shipyard/WPNSTA Financial Management Systems
COMNAVELEX	CDR/LCDR or CIV. EQUIV.	1	Part Time	NESEC Financial Management Systems
COMNAVSUP	CDR/CIV. EQUIV.	1	Full Time	Secondary Item Programming Budgeting, Policy & Procedures
COMNAVSUP	CDR/CIV. EQUIV.	1	Full Time	Secondary Item Accounting Systems

COMMAND	RANK	NO.	DURATION	SPECIALITY
COMNAVSUP	CAPT/CDR or CIV. EQUIV.	1	Full Time	Inventory & Financial Management Secondary Item Systems
COMNAVSUP	CDR/LCDR or CIV. EQUIV.	1	Full Time	ADP Systems
COMNAVSUP	CAPT/CDR or CIV. EQUIV.	1	Full Time	Reparables Management System
CMC	LTCOL/MAJ or CIV. EQUIV.	1	Full Time	Logistics
CMC	LTCOL/MAJ or CIV. EQUIV.	1	Part Time	Aviation Logistics Specialist
CLF	CDR/LCDR	1	Full Time	O&MN Programming, Budgeting, Policy & Procedures
CPF	CDR/LCDR	1	Full Time	Manpower Requirements
CNAVRES	CDR/LCDR	1	Part Time	O&MN Programming, Budgeting, Policy & Procedures
SSPO	CDR/LCDR or CIV. EQUIV.	1	Part Time	Inventory/Financial Management Systems
OP-96	Secretary/ Steno	1	Full Time	
	Clerk/ Typist	1	Full Time	

Study Plan for Migration of Depot Level Reparables (DLRs) to the Navy Stock Fund (NSF), and Marine Corps Stock Fund (MCSF)

Ref: (a) Study Directive dtd. 30 June 1978

1. Tasks.

a. Task 1. Establish a base-line system description for the existing Navy ICP managed (NIM) and Marine Corps ICP managed (MCIM) secondary item financial/ inventory management systems. Describe the various elements of the existing financial/inventory management systems listed in the subtasks below in terms of organizational structure, relevant military/civilian/contractor manpower, and material/financial transactions information flows.

(1) Subtask 1-1. The PPBS cycle for procurement of NIM/MCIM DLRs.

(2) Subtask 1-2. The PPBS cycle for depot level repair of NIM/MCIM DLRs.

(3) Subtask 1-3. The PPBS cycle for the NSF/MCSF NIM/ MCIM items.

(4) Subtask 1-4. The PPBS cycle for the end-use accounts which purchase material from the NSF/MCSF.

(5) Subtask 1-5. The budget execution system for procurement of NIM/MCIM DLRs.

(6) Subtask 1-6. The budget execution system for depot level repair of NIM/MCIM DLRs.

(7) Subtask 1-7. The budget execution system for the NSF/ MCSF NIM/MCIM items.

(8) Subtask 1-8. The budget execution system for the end-use accounts which purchase material from the NSF/MCSF.

(9) Subtask 1-9. Prepare a working paper which will consolidate the existing system descriptions in Subtasks 1-1 thru 1-8 into a single baseline system description.

b. Task 2. Utilizing the descriptive element structure in Task 1, describe an alternative for funding the procurement and repair of DLRs within the NSF/MCSF.

c. Task 3. Utilizing the descriptive element structure in Task 1, describe an alternative for funding the procurement and repair of DLRs within a single appropriation.

d. Task 4. Compare these two alternatives with the base line in terms of organizational structure, costs, relevant military/civilian/contractor manpower, and material/financial transactions/information flows.

e. Task 5. Analyze the findings catalogued in Task 4 and determine the alternative which is the most effective in terms of the criteria specified in reference (a).

f. Task 6. Identify and assign costs to the feasible options for implementation of the alternative determined by Task 5. These options should include Naval servicewide and partial (i.e. air, surface, or cog, etc.) implementation, and phasing.

g. Task 7. Prepare a draft final report for distribution to involved parties incorporating the findings of tasks 1-6 and make recommendations therein for the most effective alternative and implementation method. This draft report will be placed in final form after comments from all involved parties have been reviewed and incorporated into the report. Subsequently, presentation material, as required, shall be prepared for briefing the Advisory Committee, other offices as the Advisory Committee directs, and the CNO Executive Board.

2. Scope and Depth. The study will encompass a survey of the current systems used in the financial/inventory management of NIM/MCIM secondary items through the end-user level. The study will formulate and model two alternatives and options thereunder for the financial/inventory management of NIM/MCIM depot level reparables. The first alternative will be managing NIM/MCIM depot level reparables in the Navy and Marine Corps Stock Funds. The second alternative will be managing both procurement and depot level repair of all NIM/MCIM depot level reparables in a single appropriation. These alternatives will be compared with the current base-line and the relevant advantages and disadvantages will be identified. The primary potential benefits to be evaluated are each alternative's potential for improving material responsiveness and for improving economy. The analysis will draw on completed studies on this subject wherever possible. Based on the findings of the study, recommendation(s) concerning the Navy and Marine Corps positions on the financial/inventory management of NIM/MCIM depot level reparables will be drafted for presentation to the CEB for decision. Final decisions on matters impacting the Marine Corps will reside with the Commandant, USMC.

3. Manpower Allocation. Tasks 1 through 7 will require the service of the Project Officer full-time. Additionally, the services of 15 full-time and 9 part-time in-house Naval personnel will be required as follows:

COMMAND	RANK	NO.	DURATION	SPECIALITY
OP-01	CAPT/CDR or CIV. EQUIV.	1	Full Time	Organizational Design/ Manpower Planning
OP-03	CDR/LCDR or CIV. EQUIV.	1	Part Time	Shipalt, Programming and Budgeting
OP-04	CDR/LCDR or CIV. EQUIV.	1	Part Time	FMP/Overhaul Programming
OP-05	CDR/LCDR or CIV. EQUIV.	1	Part Time	A/C Rework Programming
OP-92	CAPT/CIV. EQUIV.	1	Full Time	Programming, Budgeting Policy & Procedures
OP-92	CDR/CIV. EQUIV.	1	Part Time	Fleet O&MN Programming Budgeting
CNM	CDR/LCDR or CIV. EQUIV.	1	Part Time	NIF Management
CNM	CDR/LCDR	1	Full Time	Management Planning
COMNAVAIR	CDR/LCDR or CIV. EQUIV.	1	Full Time	NARF Management Systems
COMNAVSEA	CDR/LCDR or CIV. EQUIV.	1	Full Time	Shipyard/WPNSTA Financial Management Systems
COMNAVELEX	CDR/LCDR or CIV. EQUIV.	1	Part Time	NESEC Financial Management Systems
COMNAVSUP	CDR/CIV. EQUIV.	1	Full Time	Secondary Item Programming Budgeting, Policy & Procedures
COMNAVSUP	CDR/CIV. EQUIV.	1	Full Time	Secondary Item Accounting Systems

OMMAND	RANK	NO.	DURATION	SPECIALITY
COMNAVSUP	CAPT/CDR or CIV. EQUIV.	1	Full Time	Inventory & Financial Management Secondary Item Systems
COMNAVSUP	CDR/LCDR or CIV. EQUIV.	1	Full Time	ADP Systems
COMNAVSUP	CAPT/CDR or CIV. EQUIV.	1	Full Time	Reparables Management System
CMC	LTCOL/MAJ or CIV. EQUIV.	1	Full Time	Logistics
CMC	LTCOL/MAJ or CIV. EQUIV.	1	Part Time	Aviation Logistics Specialist
CLF	CDR/LCDR	1	Full Time	O&MN Programming, Budgeting, Policy & Procedures
PF	CDR/LCDR	1	Full Time	Manpower Requirements
CNAVRES	CDR/LCDR	1	Part Time	O&MN Programming, Budgeting, Policy & Procedures
SSPO	CDR/LCDR or CIV. EQUIV.	1	Part Time	Inventory/Financial Management Systems
OP-09B	Secretary/ Steno	1	Full Time	
	Clerk/ Typist	1	Full Time	

4. Funding Allocation. Since contractor services are not required and travel will be minimal, no specific funding allocation is required.

5. Other Resources. Travel expenses incident to this study will be borne by each participant's sponsor.

6. Task Schedule.

		Completion date
a.	Study Directive signed:	30 June 1978
b.	Study Plan approved:	11 July 1978
c.	Task 1:	4 August 1978
d.	Task 2:	18 August 1978
e.	Task 3:	18 August 1978
f.	Task 4:	25 August 1978
g.	Task 5:	29 August 1978
h.	Task 6:	5 September 1978
i.	Task 7:	13 September 1978
j.	CEB Presentation	28 September 1978

7. Specific Guidance. In addition to the guidance contained in reference (a) the study will utilize the material developed by the Surface Ship Improvement Project (PMS-306) under contract # N00024-78-C-4103.

8. Methodology. The analytical methods to be used in this study include document search, interviews, matrix tabulations, model reviews, categorizing, and reporting.

9. Effectiveness Criteria. The alternatives described above will be evaluated vis-a-vis the baseline using material responsiveness and economy of operation as the effectiveness criteria.

10. Reports.

a. A progress report will be made to the Advisory Committee on 25 August 1978.

b. A draft final report will be made to the Advisory Committee on 13 September 1978.

c. Final decision briefing to the CEB will be conducted on 28 September 1978.

11. Coordination. The study group shall coordinate with the CNO Project Officer, the Advisory Committee, OP-96 Study Monitor, and other individuals/agencies as appropriate.

DESCRIPTION OF THE CURRENT PROGRAMMING AND BUDGETING PROCEDURES FOR SPARES AND REPAIR PARTS

I. PURPOSE

To provide a description of the current Planning, Programming and Budgeting System (PPBS) for Spares and Repair Parts as related to the procurement of Depot Level Reparables (DLRs), the repair of DLRs, the stock funds, and customer funding procedures.

II. BACKGROUND

The primary purpose of the study is to examine the feasibility and impact of funding in the stock funds those Inventory Control Point (ICP) managed Depot Level Reparables (DLRs) included within the spares and repair parts program. This description of procedures will emphasize the procurement, repair and customer funding procedures for DLRs and the operating procedures for the stock funds.

A. DLR Procurement

DLRs are initially procured and stocked in inventory to provide the spares required to support new equipment acquisitions. Subsequent procurement of DLRs are made in response to increased equipment population, changes in demand, and to replace items which wear out in the course of normal usage. The procurement of DLRs is currently funded in the following procurement appropriations:

APPENDIX D

APPROPRIATION	BUDGET ACTIVITY	ADMINISTRATOR
Aircraft Procurement, Navy	APN-6	NAVAIR
Other Procurement, Navy	OPN-1	NAVSEA
	OPN-2	NAVSEA/NAVELEX
	OPN-3	NAVAIR
	OPN-4	SSPO/NAVAIR/NAVSEA
Weapons Procurement, Navy	WPN-1	SSPO
	WPN-2	NAVAIR/NAVSEA
	WPN-3	NAVSEA
	WPN-4	NAVSEA
Procurement, Marine Corps	PMC-2	DCS (I&L)
	PMC-3	DCS (I&L)
	PMC-4	DCS (I&L)
	PMC-5	DCS (I&L)
	PMC-6	DCS (I&L)

Upon delivery from the manufacturer, DLRs are held in inventory in the Appropriation Purchases Account (APA) in the Navy and the Appropriation Stores Account (ASA) in the Marine Corps until requisitioned by a customer. The customer is not charged for the DLR and, in this context, it is considered as a "free" issue. Exhibit 1 illustrates the ICP managed DLR secondary item universe by cognizance symbol, responsible Hardware Systems Command (HSC), responsible ICP, number of items, and the dollar value of annual demand for FY 1978.

EXHIBIT 1

DEPOT LEVEL REPARABLE UNIVERSE

COG	COMMAND	ACTIVITY	# ITEMS	ANNUAL DEMAND* ($ Millions)
4R	NAVAIR	ASO	447	$ 2
2R	NAVAIR	ASO	50,400	2,186
8R	NAVAIR	ASO	717	**
2H	NAVSEA	SPCC	30,887	154
4G	NAVELEX	SPCC	12,739	114
4N	NAVSEA	SPCC	15,321	116
4A	NAVAIR	SPCC	1,912	12
6A/6H/6X	SSPO	SPCC	13,059	21
4E	NAVAIR	SPCC	161	***
6E	NAVAIR	SPCC	1,138	4
2U	NAVSEA	SPCC	1,567	66
4U	NAVSEA	SPCC	1,720	****
6U	NAVSEA	SPCC	3,930	****
8H	NAVSEA	SPCC	1,439	8
8N	CNET	ASO	2,465	**
Not Applicable	HQMC	MCLSBA	3,400	28
	TOTAL:		141.302	$ 2,711

* Demand value is calculated at acquisition cost. Most DLR issues are made as repaired items not new items.

** Demand for 8R and 8N is included in the 2R demand figure.

*** Expendable Ordnance Items are managed under the Centralized ammunition distribution controls and concepts that do not utilize this type of data.

**** Demand for 4U and 6U is included in the 2U demand figure.

B. DLR Repair

The depot level repair of DLRs serves as the principal source of replenishment stock. The DLR repair programs are under the cognizance of the HSCs (Naval Air Systems Command, Naval Sea Systems Command and Naval Electronic Systems Command) and the Installation and Logistics Department of Headquarters Marine Corps (HQMC). These programs are financed by the Operations and Maintenance appropriations from centrally managed accounts. The customer is not charged for the repaired DLR and, in this context, it is also considered as a "free" issue. A DLR requiring repair is returned to the organic or commercial depots for repair when repair is either unauthorized or impracticable at the organizational or intermediate level.

C. Stock Funds

The Department of the Navy (DON) has two stock funds -- Navy and Marine Corps. They are working capital funds utilized to finance inventories of material such as repair parts which are not considered to be economically repairable at the depot level. The working capital or revolving feature of stock funds results from charging customer funds when a stock funded item is issued. Receipt of these funds becomes the working capital of the stock fund to finance future stock fund procurements. Stock funds are operated in accordance with Department of Defense Directive (DODD) 7420.1,

"Regulations Governing Stock Fund Operation." The Responsible Office for the Navy Stock Fund is the Office of the Chief of Naval Operations (OPNAV), the Principal Administering Office is the Office of the Chief of Naval Material (NAVMAT) and the Administering Office is the Naval Supply Systems Command (NAVSUP). For the Marine Corps stock fund, all these roles are performed at Headquarters, Marine Corps (HQMC) by personnel in the Installation and Logistics Department. The actual procurement and inventory management functions are performed by the ICPs. Sub-allocations (Navy) or allotments (Marine Corps) are provided to the ICPs from the Administering Office. Stock fund budgets are developed in accordance with DODD 7110-1-M, with separate implementing guidance promulgated by each Service.

D. Customer Funding

Most customers use appropriated funds to order material from the stock funds. The exception is those depot activities which operate under Industrial Fund procedures. These activities obtain reimbursement for their work from appropriated funds.

III. DISCUSSION

This section provides a general overview of the Department of Defense Planning, Programming and Budgeting System (PPBS), Program Objectives Memorandum (POM) development, budget formulation and budget execution as they relate to the DLR study.

A. Brief Description of PPBS

The planning, programming and budgeting system is an iterative process which for the Navy proceeds through the following somewhat overlapping phases:

-- Consolidated Guidance (CG)

-- CNO Program Analysis Memorandum (CPAM)

-- Sponsor Program Proposals (SPP)

-- End Game

-- Program Objectives Memorandum (POM) Submission

-- Program Decision Memorandum (PDM)

-- Amended Program Decision Memorandum (APDM)

-- Budget Submission to Secretary of Defense

-- OSD/OMB Budget Mark-up of Decision Package Sets (DPS)

1. Consolidated Guidance (CG)

The CG phase of POM development provides broad guidance from the Secretary of Defense (SECDEF) for all the Services. This guidance describes the nature of the threat, provides various scenarios for sizing the forces, and prescribes resource targets for each Service. Draft copies of the CG are provided for each Service for comment and the final version is issued in January of each year.

2. CNO Program Analysis Memorandum (CPAM)

The CPAM phase begins in the previous September, prior to issuance of the CG, with the development of

issue papers discussing the principal problem areas requiring resolution. The initial program and preliminary fiscal guidance for preparing the CPAM is the Chief of Naval Operations (CNO) Program and Fiscal Guidance (CPFG-I) issued by the CNO in November. During the CPAM phase the CNO makes decisions on forces, programs, and resource allocations to major functions such as shipbuilding, depot maintenance, and aircraft procurement. The Summary CPAM is issued in February and provides broad program and policy guidance for POM preparation. Based on the CPAM guidance and the CG, CPFG-II is then issued to provide program and fiscal guidance to resource sponsors for POM preparation.

3. Sponsor Program Proposals (SPP)

During the SPP phase resource sponsors make specific program and resource allocation decisions to achieve balanced programs, within the assigned resource targets and CPAM guidance, across all resource requirement areas such as weapon systems acquisition, manpower, and logistics support. The SPP phase occurs during February and March of each year.

4. End Game

The End Game is an expression which signifies the final iteration before the POM is submitted to OSD. The End Game is the final balancing of programs among the various resource areas. As with the SPP phase, the objective of the End Game is to produce a balanced Navy program

within assigned resource targets and prescribed guidance. It occurs in April and early May and completes the POM process. The POM is submitted to SECDEF in May.

5. Program Decision Memorandum (PDM)

During the PDM phase the OSD staff reviews each Service's POM for compliance with the CG and makes recommendations to the Secretary of Defense (SECDEF) concerning program revisions. The PDM issued by SECDEF promulgates the tentative decisions on each Service's POM. These decisions include specific program and resource allocation changes. The PDM phase occurs in July through August of each year.

6. Amended Program Decision Memorandum (ADPM)

The APDM process is essentially a reclama evolution whereby each Service may appeal the specific PDM decisions. The APDM is issued in September and represents SECDEF's final program and resource allocation decisions.

7. OSD/OMB Budget Mark-up of Decision Package Sets (DPS)

Concurrent with the PDM and APDM phase the Navy Comptroller reviews the initial Navy budget estimates which have been prepared by the Major Claimants based on the POM as subsequently amended by the PDM/APDM decisions from SECDEF. After final decisions by the Secretary of the Navy, the budget is submitted to SECDEF in early October. Subsequent review by OSD results in decisions on each Decision Package Set

(a grouping of similar programs specifically arrayed for Zero-Based Budget decision making). These DPS decisions, after a reclama process takes place, result in a final budget submission by the President to the Congress in January. The President's budget submission is almost a year and one half after the beginning steps of the process and by that time a new POM and budget process is already underway for the next year's cycle.

B. POM Process

DLR procurement and repair requirements are developed and reviewed within the POM process described above, with most DLR decisions being made during the SPP and End Game.

1. DLR Procurement

Requirements for initial DLR spares and follow-on DLR outfittings are developed by the HSCs end-item equipment manager and the ICP based on the latest program data available. Requirements are arrayed within the budget activities for all proposed programs that require DLR support. Once developed, they are subjected to a headquarters (OPNAV/HQMC) review at the ICP to ensure compatibility with planned future program requirements, proposed support dates, and adequate justification. For the Navy, the final approved submission is made along with the requirements for replenishment spares to the appropriate OPNAV resource sponsor (e.g., OP-02 Submarine Warfare). OPNAV (OP-04) coordinates with the

resource sponsors to develop final DLR requirements for inclusion in the overall Department of the Navy POM submission. Marine Corps submissions originate with the ICP and are submitted to HQMC for inclusion in the Procurement, Marine Corps POM submission.

The DLR replenishment requirement is a demand based requirement. The process used to calculate the replenishment requirement is an elaborate computer simulation called stratification. This program simulates demand, procurement and repair of each DLR in the inventory, and calculates a gross requirement by fiscal year. The program then applies ("stratifies") available assets against these requirements. The net deficiency in assets is the basis for determining replenishment requirements for the POM. Other special program requirements (e.g., Tender Load Lists, Shore Intermediate Maintenance Activity Support Lists) which are not based on the stratification process are also considered in determining the ultimate DLR replenishment requirements for the POM. Once the POM requirements have been developed, standard escalation percentages are applied to these numbers. The total replenishment requirement for funds is offset by the projected replenishment Replacement-in-Kind (RIK) dollars received from other than Navy/Marine Corps customers, a significant portion of which are Foreign Military Sales (FMS). RIK funding is identified from actual prior year reimbursable

issues as a percentage of prior year total issues. The resultant percentage is used to forecast future RIK resource inputs. After the RIK offset the total POM procurement funding requirement has been identified. This requirement is then distributed to resource sponsors based on historical percentages, derived from prior year end-item acquisition programs, for consideration by the sponsors during the SPP phase.

The review process for procurement of DLR replenishment spares is the same as for the initial and follow-on DLR spares requirements discussed previously. After review, these proposed plans for initial and replenishment DLR procurement are submitted via OP-04 to the various resource sponsors in early February. The resource sponsors review DLR requirements in conjunction with their other requirements such as weapon systems and manpower. The sponsors attempt to balance their total program within their available resources during the SPP phase of POM development.

2. DLR Repair

Depot level repair requirements are developed in much the same manner as the replenishment procurement requirements. Since the stratification program simulates repair it also produces, in addition to a procurement requirement, the repair requirement. Special (not stratification based) repair programs anticipated through the FYDP years are

added to the stratification based requirement to arrive at the total depot repair requirement. This total requirement is then statistically broken down by resource sponsor for their consideration during the SPP phase. DLR procurement or repair requirements which cannot be accommodated during the SPP or the End Game are reflected as unfunded requirements in the POM submission to OSD.

3. Stock Funds

The stock funds are revolving working capital funds which normally do not require appropriated funds and thus are not included in the POM process. An exception to this generalization occurs when an augmentation is required to increase the on-hand cash or for the procurement of War Reserve Material (WRM). Although a cash augmentation requirement is a rather rare occurrence, a POM funding requirement for WRM is not. Sizable deficiencies in WRM exist, thus the two stock funds are experiencing a continuing participation in the POM process for this purpose. The WRM requirements are to support Service operations at combat rates (normally well above peacetime rates). These requirements are reflected in the stratification. To these are added requirements for new programs which are not considered in the stratification. The resulting deficiencies are then reflected along with the planned level of funding which will satisfy them in the POM.

4. Customer Funding

For the customer operation and maintenance accounts the planning and programming processes occur at the CNO/CMC level since service-wide allocations and budget development occur at that level. Customer activities are involved in the process by providing their requirements to each Service headquarters for consideration. Guidance is rendered by the CNO/CMC which includes the formats to be utilized, planning data (such as new equipment introductions) and financial control totals. Major claimants (e.g., Fleet/FMF) submit issue papers for POM consideration. These papers constitute proposed changes to the approved FYDP. Following review, refinement and consolidation, the approved changes are incorporated into the DON FYDP.

C. <u>Budget Development</u>

The development of the budget begins with the approval of the POM by the Secretary of the Navy and proceeds through the NAVCOMPT review and PDM/APDM phase until completed and forwarded to SECDEF.

1. DLR Procurement

Navy budget development for DLRs begins each year with the March stratification, eighteen months prior to the start of the budget year (e.g., March 1979 stratification produces FY 1981 budget). Initial provisioning DLR requirements determination for the budget submission follows the same

procedures as the POM process. In fact, the POM submission is used as the base with additions and deletions identified and justified. The most significant difference is in the data gathering phase of requirements development. The Navy ICPs receive Program Support Data (PSD) sheets and/or updated Weapons Systems Planning Data (WSPD) and Cost Sheets from the HSCs prior to the scheduled budget submission reviews. Each principal item identified in the first year of the POM as requiring DLR support has a PSD or WSPD sheet. Additionally, the HSCs provide PSD or WSPD sheets on additional principal items requiring support which are not included in the POM submission. The ICPs use these data sheets and historical cost data for similar equipments to price out initial spares requirements for the budget submission. Based on this price out the ICPs develop the Initial Spares Requirements Budget Exhibit P-18a.

Marine Corps procedures depend upon a continuing interface between HQMC and the ICP. The ICP, utilizing selected data provided by HQMC, determines DLR requirements. The provisioning subsystem of the Marine Corps Unified Material Management System (MUMMS) is the basic vehicle used to determine requirements.

When initial DLR requirements are developed, a budget review is held at the ICPs, similar to the on-site POM review. NAVCOMPT, OPNAV, NAVMAT, and the HSCs participate in

this review. When agreement is reached on inital DLR requirements, this portion of the budget is ready for submission to higher authority.

The budget cycle for DLR replenishment procurement requirements is similar to the POM process with stratification again used in developing the base. Stratification analysis is completed at the ICPs by cognizant symbol (COG) and compared with prior stratification summaries to determine trends and to highlight potential problem areas.

In addition to initial and replenishment DLR requirements development for the budget submission, resource requirements for modification change kits are determined. In the case of the Naval Air Systems Command (NAVAIR) these requirements are based on approved Operational Safety Improvement Program (OSIP) modifications as developed in the Aircraft Modification Program. After identification, these requirements are included in both the initial spares requirements and in follow-on requirements for the replenishment portion of the budget submission.

Once the budget year requirements for both initial and replenishment DLRs have been developed and reviewed, they are consolidated by the HSC/HQMC and submitted to NAVCOMPT for review. This submission usually takes the form of Budget Exhibit P-22 with the P-18a Exhibits and other data used as back-up. The review of initial DLR requirements

takes place only after a complete review is accomplished of all P-1 line items. The P-1 line items provide detailed identification of all principal item requirements. Once principal item requirements have been approved by NAVCOMPT, the DLR requirements for initial spares are reviewed. Adjustments in the initial DLR procurement budget are made to keep the DLR program synchronized with the principal item procurement program. Of particular note is the single one line entry for the DLR replenishment requirements. This one line entry is supported by budget exhibits (P-18, P-18b, P-18c, and P-18d) developed at the ICPs, as described above.

Upon completion of the NAVCOMPT review, the budget is submitted to the Office of the Secretary of Defense (OSD) where it is jointly reviewed with the Office of Management and Budget (OMB). During the review period, hearings are held to afford the Services the opportunity to make presentations and remarks regarding the budget submission and to allow OSD/OMB analysts to obtain clarification of estimates not fully explained in the submission or to request additional data. After these hearings, OSD/OMB Decision Package Sets (DPSs) are issued for each program identified in the budget. These DPSs provide the tentative OSD decisions regarding the Services funding request and result in requirements being approved as submitted, reduced or eliminated.

The claimant has the opportunity to prepare a reclama on the OSD/OMB mark. This reclama attempts to refute OSD/OMB by providing new information or justification and is submitted to OSD/OMB via NAVCOMPT. OSD/OMB reviews the reclama and issues a new DPS which may or may not revise the original mark.

The final step in the review process is the Major Budget Issue (MBI) review. This review is based on a SECNAV decision to reclama an OSD/OMB budget mark, that the Service determines to be extremely detrimental to its mission readiness, directly to SECDEF. Based on the MBI, OSD/OMB provides a final DPS that reflects the approved requirements to be forwarded to Congress.

2. DLR Repair

As in the procurement accounts, repair budget development is based on the approved Department of the Navy POM. Identified are the funds to be allocated to the HSCs for such programs as depot level maintenance, which includes those funds available for the repair of DLRs. NAVCOMPT issues guidance for the preparation of the budget submission and provides funding controls to the major Navy and Marine Corps claimants (e.g., CINCLANTFLT, CINCPACFLT, and NAVMAT). These controls include the depot level maintenance programs. The claimant develops requirements based on program factors (e.g., flying hours) set forth by OPNAV and HQMC during POM development. These requirements are translated into

financial and personnel resource requirements by each claimant and are submitted to NAVCOMPT for review in June. The NAVMAT submission is developed by the HSCs. The HSCs and HQMC goal is to allocate resources in such a manner as to best meet stated requirements and optimize fleet readiness within the manpower and financial resource constraints imposed by higher authority.

In early June, the HSCs submit to NAVMAT, or in the case of the Marine Corps, an internal review authority, a Summary Budget Exhibit. This exhibit is reviewed and changes are made as necessary, with the resultant product submitted to NAVCOMPT. Included is a summary display of the total depot level maintenance program, with the DLR repair program separately identified. Concurrently with the development of the Summary Budget Exhibits, detailed budget back-up data has been under development. This detailed budget plan, in the format of specific budget exhibits, is adjusted for any changes directed by NAVMAT or the reviewing authority within the HQMC. These detailed plans are reviewed by NAVMAT or within HQMC, and when approved, are submitted early in July.

DLR repair requirements for inclusion in the Summary Budget Exhibit are developed by the ICPs using the same stratification process used to develop the DLR replenishment procurement requirements. These repair requirements are displayed in budget back-up documentation in the OP-45 series.

Repair requirements are reviewed on-site at the ICPs by the same NAVCOMPT, OPNAV, NAVMAT review team which reviews DLR initial and replenishment procurement requirements. After agreement, the repair requirements are incorporated into the Summary Budget Exhibits described above. NAVCOMPT reviews these budgets in depth, requests additional information from the HSCs as necessary, and schedules and conducts budget review hearings. The budget review hearings are between NAVCOMPT representatives and cognizant personnel from the HSCs supported by HQMC, NAVMAT and OPNAV program sponsor personnel. During these hearings the entire depot level maintenance program is reviewed in depth. Particular emphasis is placed on the DLR repair programs whereby requirements are justified and the need for the allocation of funds against these requirements substantiated.

Based on the review of these budget submissions, NAVCOMPT issues tentative budget decisions in late July or early August. The HSCs, assisted as necessary by cognizant OPNAV program sponsors and NAVMAT, prepare reclamas to these tentative decisions. The reclamas are reviewed by NAVMAT and by the OPNAV program sponsors, or by reviewing authorities within HQMC, modified as necessary and forwarded to NAVCOMPT. In consideration of these reclamas, NAVCOMPT makes final decisions in regard to the funding to be allocated for DLR repair. In addition, NAVCOMPT must take into account

SECDEF PDM/APDM decisions concerning the force levels to be supported and the resources to be allocated for the support of these forces. Because the first POM year is now being refined for the budget submission, the resources available for depot level maintenance, including DLR repair, may be changed by the SECDEF final PDM/APDM decisions. When this occurs, NAVCOMPT modifies the funding levels and manpower resources to be allocated to the HSCs and issues these revised controls to NAVMAT and HQMC. NAVMAT provides these new funding and manpower controls to the HSCs, and they are distributed within the Marine Corps by HQMC.

Development of the OSD budget submission proceeds in the same manner as described above for the NAVCOMPT budget submission. Based on the decisions resulting from the review process, OPNAV provides revised requirements in terms of the number of aircraft, ships and other end items of equipment to be supported, and the planned utilization rates for these equipments. The HSCs and HQMC revise the distribution of funds to the various sub-programs of their depot level maintenance programs. Revised DLR repair requirements are developed as described above and new Summary Budget Exhibits are produced. These exhibits plus all other justification material and detailed back-up budget exhibits are developed and submitted to OSD in early October.

3. Stock Funds

The stock fund budget cycle commences with the stratification of assets performed by the ICPs. The 31 March 1978 stratification was utilized to develop the FY 1980 budget and update the FY 1979 budget. Upon approval by OSD/OMB of the revised FY 1979 stock fund budget, which may include authority to increase obligational authority, the stock fund execution plan for FY 1979 will be immediately revised. This feature is a significant difference from the appropriated accounts whose FY 1979 funding levels are fixed by the appropriation process.

The stock fund budget is comprised of three major parts; replenishment, initial provisioning and war reserve funding requirements. The stock fund replenishment funding requirement is developed based on the stratification of assets performed by the ICP as of 31 March. Included in the requirements are expected issues through the end of the budget year plus appropriate levels requirements (e.g., safety level and procurement lead time). Assets which are applied to these requirements include on-hand assets, on-order assets and anticipated returns. The net asset shortfall to the issue and levels requirements is the heart of the ICP stock fund budget. However, because all envisioned events and conditions cannot be directly incorporated into stratification, certain adjustments and special program additions must be made to define the final budget requirements.

The initial provisioning funding requirements of the stock fund are developed from the same program data used to develop initial DLR requirements. Continual dialogue is maintained with the program manager at the HSC/HQMC to ensure that all pertinent information is available for requirements development. The initial provisioning stock fund budget provides estimates for procurement of repair parts to support operations within the first year of equipment usage. Obligation authority is budgeted for procurement of the new items one procurement lead time prior to activation of new operating units. The budget for initial requirements includes system stock requirements plus all outfitting requirements within that year's objective. Estimated obligation requirements are based on actual support costs for aircraft/weapon systems of the same or similar configuration.

The War Reserve requirements, if funded, require a cash augmentation to the stock fund. These requirements are developed based on the stratification process described above.

Upon completion by the ICPs of the basic development phase, the stock fund budget is subjected to an on-site review which is conducted jointly by representatives of NAVCOMPT, OPNAV, NAVMAT, HSCs and NAVSUP. This review team is the same team which reviews DLR procurement and repair budgets.

A similar Marine Corps stock fund review is conducted with HQMC and NAVCOMPT participation. During these reviews, the budget is scrutinized for substance, technical accuracy and compliance with OSD and Service budget guidance, and to ensure compatibility with established Service policy and with planned future actions, as well as to insure that adequate back-up justification has been developed. Based on the review team budget mark-up, the ICPs revise the budget, as necessary, and forward the revised budget for submission by the DON to OSD on 15 September. The OSD/OMB review process for the stock funds is the same as described previously for the procurement and repair accounts.

4. Customer Funding

Funding and manpower controls for the OSD/OMB budget submission are provided by NAVCOMPT to OPNAV/HQMC based on the PDM and the decisions made during the NAVCOMPT review. After adjustments for APDM decisions, OPNAV/HQMC again provide revised requirements in terms of the number of ships, aircraft, and other end items of equipment to be supported and the rate of utilization of these equipments. Revised DLR repair requirements are computed as before. New Summary Budget Exhibits are developed by the HSCs and reviewed by HQMC or NAVMAT, OPNAV and NAVCOMPT. These exhibits plus required justification material and detailed back-up exhibits are submitted to OSD.

D. Budget Execution

This section discusses the current budget execution process as it relates to the procurement and repair of DLRs, stock funds and customer accounts. The section focuses on funds flow vice the mechanics of the requirements determination process within each ICP. Appendix M provides a detailed description of the ICP requirements determination process.

The passage by the Congress of the Authorization and Appropriation Acts and their signature by the President provides the basis for budget execution. Funds are then apportioned by the Office of Management and Budget to the various Departments and Agencies. In the Department of the Navy, the Navy Comptroller issues funds allocations to the various claimants.

1. DLR Procurement

Budget execution for the procurement of DLRs follows command lines to the HSCs where funds are then distributed either internally or to an ICP. Obligation of resources in the procurement account is limited to the total funds approved in each appropriation. The ICPs process the funding documents through their budget and accounting divisions where specified accounts have been established. Financial transactions are processed through the ICP automated allotment accounting system. Accounting reports are generated by the

ICP in order to permit monitoring of obligation performance. These reports are submitted to the HSCs, the allotment grantor. The HSCs and the ICPs monitor actual performance against the plan and take corrective action to reduce any variances.

There are some unique management efforts which are required in the management of DLR procurement funds. Replacement-in-Kind (RIK) funds are reimbursements for military sales made to foreign countries and sales made to other sources. Since no advance funding is provided at the beginning of the fiscal year in anticipation of these sales, resources are available only as reimbursable issues occur. The effect of this administrative display in reimbursement impacts on the inventory manager's ability to replace material. A separate aspect of the Foreign Military Sales (FMS) program is the Cooperative Logistics Supply Support Arrangement Program which provides for logistics support agreements with various countries. These agreements call for the customer to buy inventory for the supply system prior to any material withdrawals. Their supply requirements are added to existing requirements and after adequate lead time to allow for additional procurement, they may draw their needs from the supply system in the same manner as Navy and MARCORPS users. Foreign countries under such agreements have the option to cancel the agreement and be reimbursed in either cash or material. Another unique aspect of DLR budget execution is

the procurement of aviation 8R cognizance items. Inventory management of these items is done by ASO, while the procurement function remains with NAVAIR. This variation results in significant interplay between ASO and NAVAIR during budget execution, and is due to the unstable design stage of these items.

2. DLR Repair

Management of the repair of DLR components is an integral element of the concept which blends DLR and principal item repair into a homogenized program. The program is centrally managed by the HSCs or at HQMC so as to blend the program mix to capitalize upon available resources such as personnel skills, industrial capacities and available funds. There are considerable differences among the HSCs in the manner in which they perform program execution. The following paragraphs provide a discussion of the various HSC's management systems.

NAVAIR receives a sub-claimant operating budget schedule of financial authority from NAVMAT and sub-allocates funds to the Naval Aviation Logistics Center (NALC) via Resource Authorization for organic repair and to ASO via a Technical Expense Operating Budget for commercial repair. In addition to the organic/commercial split governed by mission essentiality, Circular A-76, new start and interservicing policies, funding distribution between organic and commercial

sources is influenced by personnel ceiling controls and other aircraft support workload at the Naval Air Rework Facilities (NARFs). Program balance must be achieved relative to DLR rework, engine rework, and airframe rework requirements. When it is determined that a balanced program exists, a funding plan is provided to ASO and NARF activities via NALC. The funding controls are then detailed into a Resource Requirements letter which shows fund source by activity and cost account. Prior to the beginning of each fiscal year, an obligation plan is established which projects inductions of DLRs by the NARFs, commercial sources or interservice rework. This plan is a means of ensuring that obligation authority is not exceeded. Also, it is a measure of organic and commercial inductions and ensures that induction rates are compatible with the annual allocation. The NARFs report actual weekly obligations by national stock number (NSN) of the DLR. These reports are monitored by NALC to ensure that inductions are in accordance with the ASO computed requirements and reflect the funded level of effort.

Funds for commercial component repair are received quarterly by ASO from NAVAIR. The funding of commercial contractors is accomplished by Military Interdepartmental Purchase Request (MIPR) to the Defense Contract Administration Service Regional (DCASR) Representatives, who administer contracts for DOD with a commercial contractor in

the assigned region. In addition, funded MIPRs are placed with other Services in accordance with interservice procedures. A Trial Balance Report citing various information (e.g., account number, title, accounts receivable, on order, total assets, balance prior months, balance current month, liabilities and prior year data) is submitted to the HSC.

Funding commitments are monitored on a weekly basis and obligations on a monthly basis. Follow up to the holding activity of commitments is initiated each month to determine reason for non-obligation of funds. Those funds that cannot be obligated are withdrawn. Funding for those requirements that cannot meet commitment/obligation plans is reprogrammed to meet other requirements based on requirement priorities and actual obligation of funds within the established plan. NAVAIR (with OPNAV concurrence) has complete flexibility in shifting repair funding between the airframe rework, engine rework and component (DLR) repair funding included within the total Aircraft Rework Program.

Budget execution of the DLR repair program for NAVSEA and NAVELEX is similar except that SPCC is provided both commercial and organic repair funds by NAVSEA/NAVELEX as compared to the NAVAIR/ASO/NALC relationship. They receive obligation authority from NAVMAT and sub-allocate the component rework funds to the ICPs on a Resources Authority form. Funds

issued to the Ships Parts Control Center (SPCC) ICP are informally monitored by the HSCs through the ICPs Status of Funds report. A budget execution plan is jointly developed by the ICPs and the HSCs. This plan identifies the amount of funds required each quarter of the fiscal year. DLR repair funding is issued to SPCC quarterly based upon the HSCs review of SPCC's obligation plans. SPCC provides repair funding to the Navy designated overhaul points by means of Work Requests and Project Orders. These documents specify the cost and scope of the work to be performed. SPCC uses several documents to provide repair funds to other DOD Services. Normal allotment accounting is performed by SPCC and monthly reconciliations are performed between expenditures and accounts payable.

The Fiscal Director of the Marine Corps issues an "Expense Operating Budget" allocation of funds to the ICP which includes funds for that portion of the DLR repair program which is contracted with commercial sources or other Service depots. The ICP uses these funds to finance MIPRs to DCASRs (commercial repair) or other Service depots. All other repair funds are centrally managed at HQMC (I&L) for funding repair of DLRs at organic depots. These funds are distributed to Marine Corps Maintenance Activities by Project Order. The Project Orders provide component induction authority to the performing depot commensurate with the approved annual

production schedule and the fiscal period requirements documented by the ICP. Acceptance of the Project Order by the performing depot and recording of the order at HQMC establishes an obligation against the funds. The Marine Corps performs accounting for these funds in the same manner as the Navy.

An obligation plan is prepared by HQMC (I&L) based on the production phasing of the program assigned to the organic depot. This phasing is influenced by the production capability of the performing activity and the receipt of unserviceable components from the using activities. This plan directly influences the quarterly apportionment of funds needed during the execution year. The same principle applies to the contractual efforts of the ICP. The plan is driven by procurement lead time, the availability of components for repair, and historical data governing the repair and return of components shipped by the user to the contractor's plant. The ICP provides monthly reports on obligations to HQMC (I&L). In addition, HQMC (I&L) maintains a current record of all obligations recorded from Project Orders issued to the organic depots. The aggregate of these obligations is compared with the quarterly obligation plan. If review of the monthly reports indicates deficiencies in program execution, a critical analysis is made to determine the reason for the shortfall and the actions needed to improve performance or the necessity to reprogram funds. In isolated instances, priorities may

dictate the need to contract more effort with industry or other Services if the components planned for organic depot repair cannot be deferred to a subsequent fiscal period. Monthly letter reports are provided HQMC on units contracted to industry and other Services. Monthly Production Progress Reports are provided HQMC by the organic depots.

3. Stock Fund Budget Execution

The execution phase of the stock funds commences with the receipt of the approved apportionment of funds through the fiscal chain. Budget execution at the ICPs includes planning and development of a formal plan, and the receipt, control, monitoring and reporting on the status of all ICP held resources.

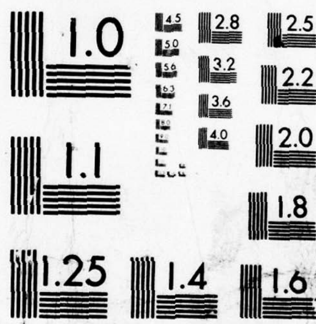
For the Navy Stock Fund, NAVSUP issues quarterly suballocations to the ICPs based upon approved apportionment. This allocation contains specific resource limits for obligation and commitment authority. The total commitment and obligational authority represents a legal limitation (RS 3679) that cannot be exceeded. In addition, the ICP is also limited by separate Operating Targets (OPTARS) for the procurement of replenishment, provisioning and War Reserve stocks. The War Reserve OPTAR is required by OSD/OMB and cannot be altered without their approval. The other OPTARS are administrative control devices imposed by NAVSUP. Reprogramming between the replenishment and provisioning OPTARS

AD-A073 185 OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON DC F/G 5/1
DEPOT LEVEL REPARABLES: AN ANALYSIS OF CURRENT AND ALTERNATIVE --ETC(U)
AUG 79 R J MOLONEY

UNCLASSIFIED NL

3 OF 4

AD
A073185



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

may be approved by NAVSUP. There are no threshold limitations on these reprogramming actions. Procurement of War Reserve Material (WRM) is much more tightly controlled than other areas of stock fund operations. Because of Congressional interest in the WRM program, OSD requires a list showing NSN, nomenclature, unit price, quantity, and extended line item value of all items being procured for War Reserve stocks. The buy list is processed through official Navy channels to OSD and Congress for approval. NAVSUP officially notifies the ICP of the results of the WRM review specifying the quantities by line item to be procured. The budget execution plan is then developed based upon the approved buy specified by NAVSUP. The plan is monitored to insure that all funds are utilized and that only those items on the buy list are funded with War Reserve funds.

At the NAVSUP level, budget execution entails providing policy or program guidance to the ICPs as well as forwarding approved funding. The Material Accounting Branch is responsible for reporting the status of all funds sub-allocated to the ICPs including the establishment and maintenance of the various financial ledgers and submission of reports. A report is submitted monthly by the ICP indicating the status of all stock funds. This report provides a breakdown of ICP held funds plus field and open allotments. A reconciliation is performed between the expenditures as

reported by the various Navy finance centers and those recorded in the ledger at the ICP, and a quarterly report is submitted. The ICP has authority to issue allotments of stock funds to field activities to procure certain designated items locally. This enables the designated operating activities to obtain small dollar value items that can be procured faster locally at the same cost as the ICP procurement system. Open allotments are established for Special Accounting Class 207 ships (stock funded) and shore stations that do not get field allotments; however, they operate in the same fashion as field allotments.

The ICP formulates a budget execution plan based upon the approved funding levels and the projection of customer orders and obligations included in the stock fund budget submission. Actual customer orders are monitored and analyzed against the Orders Plan contained in the ICP's approved budget execution plan. Any significant deviations from the plan must be analyzed to determine the cause and whether or not changes to operating plans are required. These deviations provide the basis for requests for adjustments to obligation authority.

The following principles are key elements in the relationship between NAVSUP and the ICPs for operation of the stock fund:

-- NAVSUP issues funding authority to the ICPs in quarterly increments.

APPENDIX D

-- NAVSUP has the flexibility of requesting from OSD/OMB additional obligation authority if required. These requests can be the result of program changes related to orders growth, provisioning changes or emergent requirements to build inventory levels for specific purposes. All of these changes can be accommodated outside of the events of the annual appropriation cycle.

-- Management is by deviation, i.e., the focusing of management attention on the absolute value of the difference between orders and obligations vice the absolute value of total orders and total obligations.

-- ICPs are authorized to convert commitment authority to obligation authority to the extent that customer orders are projected to exceed the approved level.

NAVSUP uses the official reports submitted by the ICPs for management purposes and to report on obligation rates. These internal reports must be augmented by estimates of field allotment and open allotment obligations.

Stock fund prices are stabilized and changes are made only at the beginning of the fiscal year. This stabilized annual pricing minimizes disruption in the customer accounts. Accordingly, the ICPs must establish a cut-off date (generally late May/early June) for considering new procurement data in order to validate the new base prices. Required price changes are made and the tape of price changes for all items

managed is submitted to the Defense Logistics Support Center in time to be received by 15 July and recorded in the official cataloging system by 1 October. Item price changes are utilized by CNO in determining the funding impact on the subsequent year customer budgets. The price change impact is also used by each ICP as part of subsequent year customer order forecasts. Included in the selling price of the item is a surcharge which recovers losses due to pilferage, repair, deterioration, obsolescence, and transportation costs being experienced in the maintenance of system stock levels. The Navy/Marine Corps Service surcharge range from 8% to 16% depending upon the material commodity classification. An OSD surcharge for expected price escalation is also applied to every stock funded item. This forward pricing for inflation permits the price stabilization discussed above, while ensuring sufficient stock fund income to maintain adequate working capital.

End users of stock fund managed material are provided with the opportunity to return excess material for credit. When an item is offered for return at a stock point, the stock point will normally query the ICP for credit determination by FTE (Report of Excess) automated procedures. The ICP screens the asset position of the items to determine if credit should be allowed. The ICP screening will result in one of the following determinations:

-- Full credit will be granted for the item if the projected requirement through the end of the budget year exceeds the sum of on-hand and on-order assets.

-- No credit will be allowed, but turn-in of the item is directed for those quantities of the item which exceed requirements through the Budget Year but do not exceed the system retention level (usually approximately seven years worth of requirements).

-- No credit will be granted and turn-in will not be allowed for any quantity of the item in excess of the retention level. Disposal of the item is directed.

The ICP then notifies the stock point by FTR response of the action to be taken.

Marine Corps stock fund management is performed by the Deputy Chief of Staff for Installation and Logistics. The DCS (I&L) provides funding guidance for wholesale level inventories of stock fund financed material for the Commanding General, Marine Corps Logistics Support Base Activity (MCLSBA), Albany, Georgia. Additionally, the DCS (I&L) issues allotments for transportation costs to be borne by the stock fund and wholesale system stocks of combat rations to the Director, Facilities and Service Division, for his management and operation of these two functions. Allotments are issued to the ICP with three distinct Operating Targets (OPTARS) for replenishment, provisioning and War Reserve

stocks. The ICP is advised, by separate correspondence, of the obligation/commitment ceilings assigned.

The Fiscal Director of the Marine Corps manages the Headquarters level accounting system which accomplishes record keeping and fulfills the required reporting obligations. Allotment accounting for stock funds directly allocated to HQMC responsible officials (combat rations, clothing, transportation) is also performed by the Fiscal Director. Allotment holders report on execution of their program to the Fiscal Director of the Marine Corps on a monthly basis. The Status of Allotment (NAVCOMPT Form 2025) is the reporting vehicle. This report indicates the authorization received, commitments, obligations, and expenditures as reported by Budget Project within the OPTARS by fiscal year. After extrapolation and compilation of the data is completed, the obligation status is determined. The Marine Corps does not prepare an obligation report separately, instead it reports obligations as an element of several reports. Fund availability is posted to appropriate transaction journals and is made available to material management personnel for commitment/obligation through the computer support processes of the Automated Allotment Accounting Subsystem of the Marine Corps Unified Material Management System (MUMMS). Credits for material returns are managed in the same manner as the Navy Stock Fund.

The allotments are issued by OPTARS which provide a restrictive ceiling by functional category. Budget project distribution is also provided in the allotment for the purpose of application to specified material management category. The ICP is authorized to transfer funds between budget projects, but not OPTARS. Obligation and commitment ceilings are also furnished. The automated Allotment Accounting Subsystem of MUMMS is the basic allotment record keeping system in use by the ICP. The system interfaces with the Inventory Control and Automated Procurement Subsystem thereby enabling prompt data recording and production of management information. The system produces:

-- Daily allotment status reports.

-- Daily listings of all manually inducted transactions posted.

-- Daily edit updates which reveal activity occurring in the automated procurement process.

-- Exception reports which present exceptional condition transactions to financial managers based upon predetermined criteria.

This system has prescribed controls which enable the close scrutiny of commitments, obligations and expenditures. Transactions experiencing deviations of predetermined criteria are, for example, displayed for analyst review. Funding limitations may also be established when the situation so

dictates. No field allotments are issued by the ICP.

The Marine Corps ICP develops a budget exec(-ERROR-)n for customer order projections, during the final stages of budget development, based upon the data produced in the stratification process as refined by historical experience and program data from customer activities. Obligation projections are developed similar to customer orders projections with the added factor of procurement history and contracting lead time very much a factor in the process. Actual customer orders are monitored and analyzed against the Orders Plan contained in the ICP budget execution plan. Significant deviations are analyzed to determine the cause and evaluate the merits of a change to the plan. Deviations serve as the basis for requests for adjustments in the ICP Program (i.e., obligation authority increase/decrease).

Actual obligations are monitored and analyzed against the approved obligation plan. This examination, and other associated controls, insure that HQMC obligation ceilings are not exceeded. Upon recognition of the needs for increased obligation authority, a request is submitted to HQMC. Adjustments in obligation authority may be made at any time throughout the budget execution cycle when justified by demonstrated requirements.

The ICP submits monthly sales reports (generated within the Stores Accounting sub-system of MUMMS) to

HQMC. These reports are pyramidal in format, thereby presenting a breakout of activity for the wholesale as well as the retail components of the system. Sales are also summarized and expressed financially by customer within each material category. Obligations are reported monthly to HQMC on the Status of Allotment Report. This report reflects current month as well as year to date information.

The procedures described above for the Marine Corps Replenishment category are generally the same as those applied to Provisioning. It should be noted, however, that the execution of the Provisioning Program is tied closely to the introduction of the principal end item. This alignment affects stock fund procurement efforts when the principal end item experiences program slippage or changes in quantity. Changes of this type in principal end items frequently result in similar changes in stock fund provisioning execution. Accounting processes for provisioning are frequently more difficult and manually oriented due to the system of procurement which orders repair parts in advance of technical data cataloging action.

Marine Corps War-Reserve procurement is subject to the same restrictions as described for the Navy Stock Fund.

4. Customer Funding

This section on budget execution discusses the customer accounts which purchase material from the Navy and Marine Corps stock funds.

The decision to initiate a request for an item of supply stems from usage or a provisioning/initial outfitting requirement. Usage is caused by normal consumption or maintenance actions. Most ship outfitting requirements are determined by reference to the Consolidated Shipboard Allowance List (COSAL), subject to Fleet/TYCOM replenishment rules. Provisions exist to add additional items to a ship's on-board stock through allowance changes or demonstrated usage. Generally, the same provisions exist for the Aviation Consolidated Allowance List (AVCAL) support through IOLs updated in response to configuration changes and Mobile Logistics Support Force (MLSF) load lists. Shore activities are also provided with allowance lists such as Base Support Lists and Operational Support Inventories for aviation intermediate maintenance activities. There is also a system of fixed allowances, afloat and ashore, for APA reparables. Since 50% to 60% of funds distributed to TYCOMS support maintenance in some form, maintenance policies are a prime motivator for the requirements determination rules covering repair parts.

All activities use Military Standard Requisitioning and Issue Procedures (MILSTRIP) to submit requisitions. Various requisition guides and customer oriented manuals provide information on the appropriate supply activity designated to receive requisitions. In most cases, requisitions are submitted directly to the nearest supply activity or replenishment ship stocking the items required. Submarines, however, submit requisitions through a designated intermediate support site (submarine tender or base) to provide for accounting and requisition control functions which cannot be performed by the submarine. Demands for aviation items are submitted directly to ASO, except for WESTPAC units which requisition items through NSD Subic. Fleet Intensified Reparables Management (FIRM) reparables are requisitioned directly from SPCC or from MLSF units. CLAMP (Closed Loop Aeronautical Management Program) reparables are drawn from and returned to wholesale supply activities and organic/commercial rework facilities using Non-MILSTRIP serial number control procedures, but with system visibility being maintained over these assets.

DLRs are issued without charge to the requisitioner. However, stock fund material is charged to customer funds. The following paragraphs focus on the customer budget execution process for stock fund material.

Fleet Commanders (major claimants) receive O&MN funding from CNO in the form of a major claimant operating budget. From this budget the Fleet Commanders issue funds to their Type Commanders (TYCOMS). In turn, the TYCOMS issue operating budgets to shore activities and OPTARS to ships, MAGs, aviation squadrons, staff and other operating units designated as cost centers. Certain accounting requirements, usually to maintain memorandum records, are placed on OPTAR holders, but it is intended that accounting and reporting by the operating forces will require only the level of effort and complexity necessary to meet the requirements of higher authority. In general, OPTAR accounting and reporting by Fleet units is performed only for the current fiscal year plus six months, at which time the Fleet Accounting and Disbursing Center (FAADC) assumes the accounting functions.

That portion of aviation support which positions on-board stock in support of aircraft maintenance on aircraft carriers and in the Marine Air Groups (MAGs) is provided by the AVCAL account. The aviation TYCOMS provide funding to each Carrier and MAG for outfitting (including deckload changes) and to fund inventory level increases associated with increases in usage. The AVCAL account for the carriers and MAGs operates as a mini-stock fund. That is material issued in support of aircraft maintenance or operations is charged to the appropriate TYCOM OPTAR. Items used

in aircraft maintenance are charged to the Aviation Fleet Maintenance (AFM) OPTAR held by the ship or MAG. Items used for operations, such as flight clothing, are charged to individual squadron operation OPTARS. OPTAR funds are used to replenish AVCAL inventories. The process is similar at Naval Air Stations, except that the inventories are held in the Navy Stock Fund vice in an AVCAL account.

On-board stock in support of shipboard maintenance (COSAL stocks) are financed in three ways. First, the SCN appropriation funds COSAL stock for newly commissioned ships and for ships completing major conversions. Second, the Fleet Modernization Program (FMP) COSAL account (in O&MN) provides COSAL support for newly installed systems. Inventory level increases and usage replenishment is funded by the TYCOM Supplies and Equipage (S&E) funds provided to the ship in the form of an S&E OPTAR.

Each ship, MAG, aviation squadron or command maintains an OPTAR log to record the transactions authorized to be charged against the individual OPTARS. A separate log is established for each OPTAR received. Files are established to hold appropriate accounting documents (requisitions, cancellations, etc.) until they are forwarded to the FAADC for matching with expenditure documents from supplying activities. The initial OPTAR and any increases or decreases thereto, are entered in the log. Each Navy Stock Account (NSA) material

requisition is recorded as an unfilled order (obligation) by Julian date, document number, National Stock Number (NSN), nomenclature, quantity, and estimated cost. Upon receipt of the material, the Julian date of receipt is recorded on the same line of the log, and any difference between estimated cost and actual cost is noted. The OPTAR balance is adjusted to indicate the amount of OPTAR funds still available. Requisitions for APA items are recorded in the log with the notation "nonchargeable." Three times a month the log is balanced and the related documents in the files are transmitted via the OPTAR Document Transmittal Report (NAVCOMPT Form 2156) to the appropriate FAADC. Fleet issue or tenders (Class 207) ships submit documents only at the end of the month. A Budget/OPTAR Report (NAVCOMPT Form 2157) is submitted monthly to the FAADC and to the TYCOM. This includes data on obligations, grants, transmittals, consumption, etc. Except when the OPTAR holder is in the immediate vicinity of the FAADC the report may be filed by message.

Industrial Fund activities performing depot overhaul and maintenance on ships, aircraft, and equipments constitute the bulk of the remaining customers of ICP managed stock fund material. Similar to the stock fund described above, Industrial Funds act as revolving funds in that material is purchased (from stock funds) with Industrial Fund cash and "sold" when the overhaul/maintenance charge is lodged against the funds of customers of the industrial activity.

STRATEGIC SYSTEMS PROJECT OFFICE
MANAGEMENT OF DEPOT LEVEL REPARABLES

I. PURPOSE

To examine the management of Strategic Systems Project Office (SSPO) Depot Level Reparables (DLRs) at the Navy Inventory Control Point and to determine a course of action for management of these items in a stock funded environment.

II. BACKGROUND

The Fleet Ballistic Missile Weapons System (FBM WS) provides the United States with a system intended to deter a possible aggressor from launching a first strike attack against the United States or other friendly territory. The longer range TRIDENT Strategic Weapons System (SWS), when deployed, will assure a credible deterrent to nuclear attack continuing long into the future. To insure the technical capability of the FBM WS and the TRIDENT SWS, SSPO has been assigned complete responsibility for development, procurement and life cycle logistics support for both systems. The Director of SSPO is responsible on a continuing basis for the reliability, effectiveness and operational readiness of the FBM WS and will have the same responsibility for the TRIDENT SWS. The Director of SSPO has delegated some inventory management functions for certain weapons system DLRs to the Ships Parts Control Center (SPCC). The FBM WS and TRIDENT SWS reparable items at SPCC

are separately identified and managed under one of three cognizance symbols (6A/6H/6X).

III. DISCUSSION

A. Budgeting

1. DLR Procurement.

Although it is desirable for the Navy to have a uniform position (i.e., all DLRs budgeted in the same manner) there are certain special circumstances involved in the management of SSPO material:

a. The POM for 6A/6H/6X material is prepared at SSPO based on the most recent line item stratification and adjusted for SSPO planning data such as deployment schedules, overhaul schedules and exercise firings.

b. The DLR procurement budget for 6A/6H/6X material is formulated based on line item stratification adjusted for SSPO planning data such as deployment schedules and exercise firings. SSPO has a completely integrated Weapon System budget. This capability does not exist for other Navy DLRs. To ensure that the budget is adequate to support program objectives, SSPO sends a team to SPCC which reviews every item with a stratified procurement deficiency of $5,000 or greater. This item by item review covers 75 to 80 percent of the total procurement requirement.

c. Procurement funds are transmitted to SPCC and the procurement budget is executed based on the appropriate

UICP programs. However, certain aspects of the Navy inventory model have been overridden because of unacceptably low safety levels obtained on the normal model for low demand repairable items. It would involve major revamping of these UICP ADP programs to incorporate the various elements of management currently provided off-line by SSPO managers (Mission Essentiality Factoring, Deployment Schedules, overhaul schedules, exercise firings, etc.). SSPO provides program data to SPCC managers to insure that program considerations are included in procurements.

2. Repair

a. The SPCC role in the repair POM and repair budget process is limited to providing asset status to SSPO subsystem managers. The repair POM and repair budget is prepared on a subsystem basis as a part of the integrated weapons system budget. The subsystem manager uses a forecasting model which uses equipment operating months, failure rates, modification plans, offload plans and outload plans to project future repair requirements. No separate breakdown is made for 6A/6H/6X material, since none is required for either budget justification or budget execution.

b. No repair funds are transmitted to SPCC during the budget execution phase. SSPO places repair funds at designated repair points through the use of commercial contracts or project orders. SPCC, based on direction from

APPENDIX E

SSPO, schedules individual items for repair at designated repair points on an as needed basis. SSPO items are scheduled on the basis of SSPO Instruction 4423.39D which establishes policy and procedures for FBM WS and TRIDENT SWS repairable items under cognizance of SSPO. The Navy UICP Reparables Management Program is not used for SSPO material. Budget execution is monitored on a subsystem basis through various reports available to the subsystem manager.

3. Material Availability

Due to the high strategic importance to our national defense given to the FBM WS, CNO has established a 95% system Material Availability (SMA) goal for SSPO material compared to 85% for other DLRs. This significantly higher SMA goal necessitates special handling procedures to achieve this goal. During the fiscal year 1978 system material availability was as follows:

6A = 89.2%

6H = 91.4%

6X = 81.6%

In addition, tender material availability (the point at which SSBNs receive support) for 6A/6H/6X material during fiscal year 1978 was over 94%. Additional data for fiscal year 1973 through 1978 is shown on Tab 1. Review of these statistics would indicate that little improvement in SMA can be gained by transferring 6A/6H/6X cogs into the stock fund.

4. Program Priority

SSPO was established to give the FBM WS the close attention and management necessary to obtain the CNO goals for SMA and operational readiness of the FBM units. The historically high priority given to all SSPO programs would probably not be strengthened by transfer to the stock fund.

5. Program Management

The majority of SSPO item management business (procurement and repair) is handled at the headquarters level (35,813 items at SSPO and only 13,933 items at SPCC). This is in sharp contrast to the other DLR items, of which the majority are managed by the Navy Inventory Control Points.

6. Level of Funding

The FBM WS and TRIDENT SWS material at SPCC has historically been fully funded. In addition, SSPO has significant reprogramming flexibility within the FBM funding appropriations.

IV. CONCLUSION

A major reason for the successful management of FBM WS and TRIDENT SWS has been the unique cradle-to-grave reponsibility of SSPO for the weapon system. Migration of DLRs to the stock fund would result in a split in the management of funding for logistics support, a program which is most vital to the deployment of the strategic forces. Transfer of FBM WS and TRIDENT SWS DLRs to the stock fund would reduce SSPO's

control of 6A/6H/6X DLRs. In a program such as the FBM WS and TRIDENT SWS where SSBN patrol schedules and refit time frames are so critical, the split in responsi- bilities in management of reparables and the overall program could have a serious impact on maintaining target coverage. In view of the current high level of support for 6A/6H/6X material and the adverse impacts expected on the FBM WS and the TRIDENT SWS from a split in management of DLRs, it is concluded that the FBM WS and the TRIDENT SWS DLRs managed at SPCC should be excluded from migration of DLRs to the stock fund. Since the SSPO DLRs at SPCC are separately identified and managed there will be no impact on other Navy logistics programs.

6A/6H/6X Material
($ - Millions)

Number of Items	$ - Value of Issues FY77	$ - Value of Issues FY78	$ - Value of Inventory May 1978
13,993	22.1	19.9	149.2

Replenishment Funding

	FY78	FY79
Required	4.8	5.9
Approved	4.8	5.9
Unfunded	0	0

SMA (%)

	6A	6H	6X
FY73	94.3	92.6	88.4
FY74	94.9	95.0	88.5
FY75	93.5	94.6	87.9
FY76	92.1	93.0	83.4
FY7T	93.3	93.7	83.0
FY77	90.0	93.7	81.2
FY78	89.2	91.4	81.6

Procurement Leadtime 373 days

Tender Effectiveness (%)

	FY76	FY7T	FY77	FY78
6A	93.4	93.9	90.0	94.5
6H	91.9	93.3	92.7	93.6
6X	87.0	83.4	91.1	95.5

Repair Funding: As stated in the narrative, no separate breakout of repair funding is made for 6A/6H/6X cog material, but it is estimated that about 10% of SSPO repair funds are used for repair of 6A/6H/6X DLRs or 4 to 5 million per year.

Carcass Return Rate 99%
Survival Rate 96%

TAB 1

APPENDIX E

TIME PHASING OF DEPOT LEVEL REPARABLES SUPPORT RESPONSIBILITY

I. PURPOSE

To define the "point in time" in the development of spares support for a new weapon system at which the support responsibility for the procurement of Depot Level Reparables (DLRs) would be assumed by the stock fund.

II. BACKGROUND

Spares support consists of three distinct segments: Interim Spares, Inventory Control Point (ICP) Initial Spares, and Replenishment Spares. As illustrated in TAB 1, each of these segments provide supply support during specific time periods. Interim spares provide support from the first delivery of a new weapon system until the Material Support Date (MSD). MSD is the date that the Navy supply system assumes supply support responsibility. ICP procured initial spares provide support from MSD through the initial support period (approximately 12 to 18 months). Replenishment spares provide support for the remaining life of the weapon system.

The three segments are also differentiated from a management point of view. Interim spares are what the name implies, they provide support in the interim period until the design has stabilized to the point where Provisioning Technical Documentation (PTD) can be provided by the contractor to the

APPENDIX F

ICP for full provisioning. Interim spares are managed outside the supply system, usually by the contractor. They are budgeted and procured by the Hardware Systems Commands (HSCs) using procurement funds. Usually the end item contract is the vehicle for the procurement of interim spares.

The ICP is responsible for preparing the budget backup material and the procurement of ICP initial spares, but the final budget for submission to OSD and the administration of funds during budget execution is controlled by the HSCs.

The title "replenishment" spares is somewhat of a misnomer. Replenishment spares represent not only replacement of attrition but follow-on outfittings in support of additional weapon system deliveries as well. The ICP is responsible for preparing the budget backup material and for the procurement of replenishment spares, but the final budget submitted to OSD and the administration of funds is controlled by the HSCs.

III. DISCUSSION

Based on the above, the following considerations are relevant in determining the point in time at which the funding responsibility would shift from the procurement accounts to the stock fund.

-- Interim spares are closely associated with the end item acquisition program.

-- Interim spares by their nature (design instability, no PTD) must be managed outside the supply system.

-- The HSCs are responsible for interim support and would have no involvement with the stock fund during the interim support period.

-- Procurement of ICP initial spares represents the first involvement of the supply system.

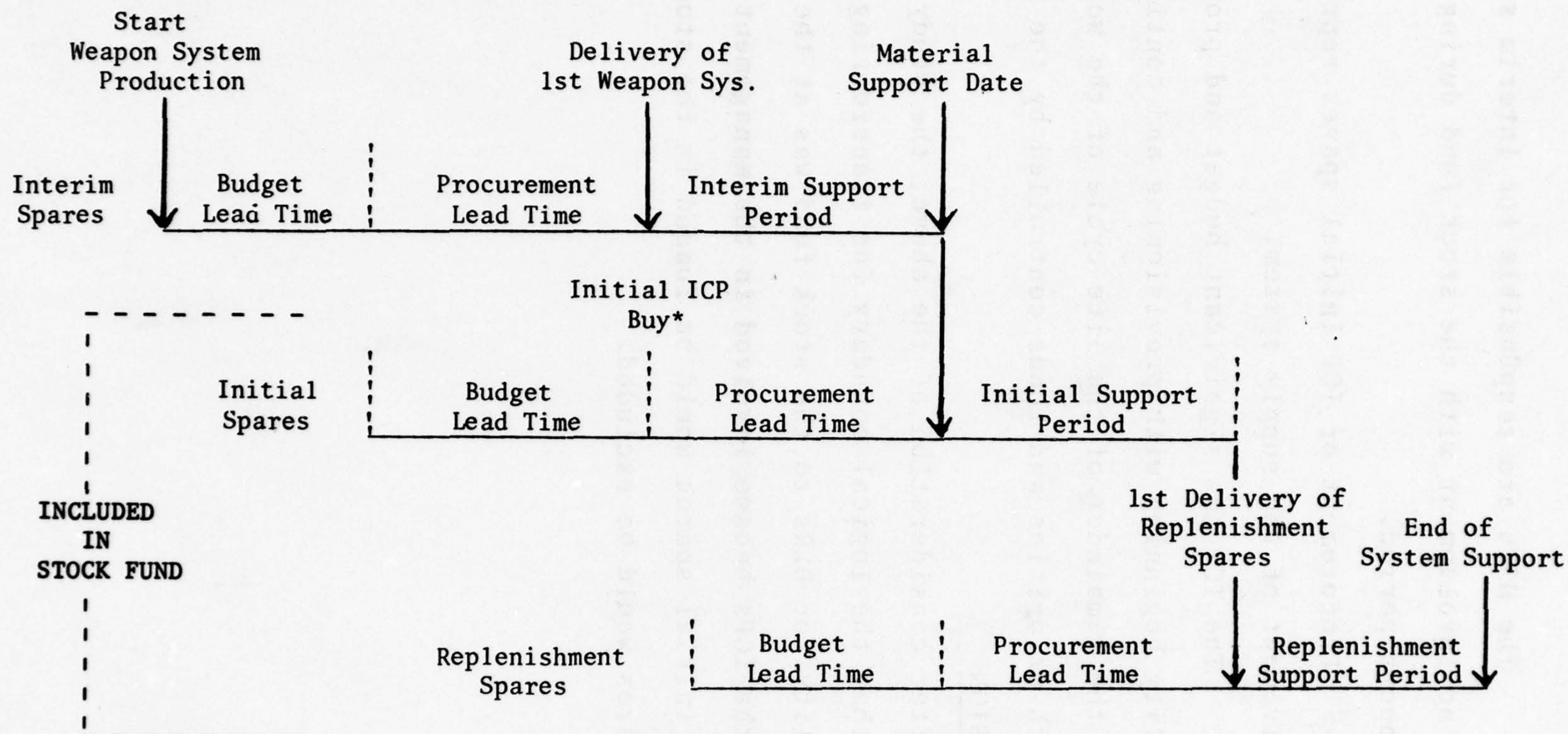
-- The ICP has significant budget and procurement responsibility beginning with provisioning and continuing throughout the remainder of the life cycle of the weapon system, with priorities and funds controlled by the HSCs.

IV. CONCLUSION

After consideration of the above, the study group concluded that the logical boundary for transferring funding responsibility for DLRs to the stock fund was at the point in time that the ICPs became involved in the management of DLRs. Therefore, initial spares would be funded in the stock fund and interim spares would be excluded.

SPARES BUDGETING FOR SUPPORT

FOR A NEW WEAPON SYSTEM



*Initial ICP buy for spares to outfit sites scheduled during initial support period (approximately 12 to 18 months) plus additional items to support repair turn around time. DLR usage during this period is supported by depot repair of DLRs.

MODIFICATION OF DEPOT LEVEL REPARABLES AND CONFIGURATION CONTROL

I. PURPOSE

To describe the proposed method of funding the procurement of modification change kits and installation labor costs for spare Depot Level Reparables (DLRs).

II. DISCUSSION

The requirement to modify a DLR results from an Engineering Change Proposal formulated by a Hardware Systems Command (HSC) end item manager and approved by the HSC's Configuration Control Board. The approval decision is based on the necessity to correct deficiencies or improve the capability of the installed equipment. Modification of spare DLRs is dependent upon this decision. The decision process includes the identification and commitment of funding for the change kit procurement, installation costs and all other logistics support requirements to support the change. In general, under the present system the purchase of change kits is funded in procurement accounts and, except for those installed by fleet activities, the installation of the kits is funded with O&M funds. For installed DLRs, however, both the purchase and installation of the change kits is funded in the procurement accounts if a commercial contract is used for the primary purpose of modifying the end item. Commercial

APPENDIX G

contracts for rework of the end item are funded in O&M accounts and the installation costs for installed DLR modifications performed during this rework are also funded with O&M funds. Both the procurement accounts and the O&M funds are administered by the HSC having configuration control responsibility. TAB 1 provides a pictorial display of the current funding network for equipment modifications.

For the single appropriation alternative, which combines DLR repair funding with the associated procurement funds, no change would occur in the change kit procurement funding process for either installed DLRs or spares. Funding of change kit installation in installed equipment would remain as it is under the present system; i.e., in the procurement account if the work is accomplished commercially, and with O&M funds if accomplished organically. For the spare DLRs, the funding of the change kit installation costs would be included in the procurement accounts. As it is under present procedures, the O&M funds and various procurement accounts associated with DLR modifications would be administered by the HSC having configuration control responsibility. From the viewpoint of spare DLR modification management, the function would be simplified in that the procurement and installation of change kits for spares would be funded in the same procurement account.

If DLRs are transferred to the stock fund, the funding of the change kit procurement for both installed DLRs and for spares would remain in the procurement accounts. The funding of installation costs for installed equipment would remain as it is today. However, spare DLRs are usually modified at the same time they are being repaired by the depot. In most cases, the installation labor required for modification is much less than that required for repair. It would be very difficult to separate the labor cost of installing modifications from the depot repair labor costs. Since the stock fund would be responsible for funding repair costs, it follows that the stock fund should also fund the cost of installing modification kits in spare DLRs in order to simplify the funding procedures. This creates a split in total funding responsibility in that the HSC responsible for configuration control no longer has total funds administration responsibility for the change kit installation funding of spare DLRs.

The HSC Configuration Control Board requires assurance that all funding and necessary support is available or will be made available before a proposed change is approved. Therefore, the role of the ICP (stock fund) member on the Configuration Control Board must be strengthened in that he must have the authority to commit stock fund resources for the installation costs of changes in spare DLRs at the time the change is approved by the Board.

This functional relationship between the ICP and the HSC provides the necessary mechanics to satisfy the modification approval and incorporation process, but it also weakens the funds control of the HSC in meeting his configuration control responsibility.

In the stock fund alternative, funding both the purchase of change kits and the installation costs for DLR spares in the stock fund was considered. However, this alternative would present substantial financial management problems in funding the procurement of change kits. First, the stock fund manager would have to provide funding to the HSC in order to consolidate change kit procurement for both installed and spare DLRs. Second, stock fund procured change kits would have to be sold vice issued free and, therefore, would have to be separately identified and managed -- a costly process. Finally, an additional programming and budgeting step would be required to provide funds to buy the change kits from the stock fund. In addition to the financial management problems, the decision to modify equipment is made by the HSC and the funds required to procure change kits for DLRs cannot be adequately estimated by either the stock fund manager or the customer.

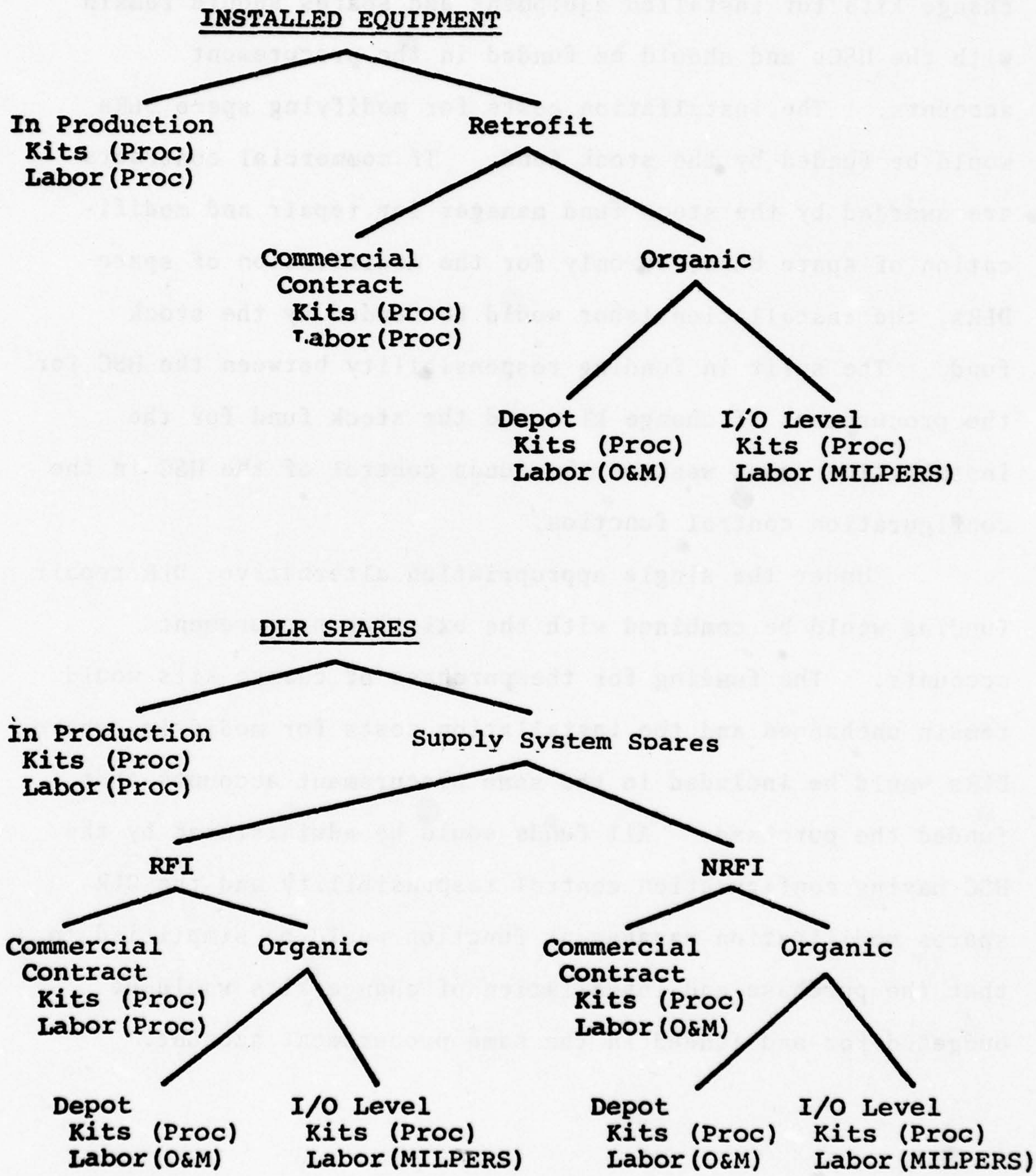
APPENDIX G

III. CONCLUSION

If DLRs are transferred to the stock fund, the responsibility for funding the procurement of modification change kits for installed equipment and spares should remain with the HSCs and should be funded in the procurement accounts. The installation costs for modifying spare DLRs would be funded by the stock fund. If commercial contracts are awarded by the stock fund manager for repair and modification of spare DLRs, or only for the modification of spare DLRs, the installation labor would be funded by the stock fund. The split in funding responsibility between the HSC for the procurement of change kits and the stock fund for the installation costs weakens the funds control of the HSC in the configuration control function.

Under the single appropriation alternative, DLR repair funding would be combined with the existing procurement accounts. The funding for the purchase of change kits would remain unchanged and the installation costs for modifying spare DLRs would be included in the same procurement accounts that funded the purchase. All funds would be administered by the HSC having configuration control responsibility and the DLR spares modification management function would be simplified in that the purchase and installation of change kits would be budgeted for and funded in the same procurement account.

CURRENT FUNDING NETWORK FOR EQUIPMENT MODIFICATIONS



CARCASS TRACKING OF INVENTORY CONTROL POINT MANAGED DEPOT LEVEL REPARABLES

I. PURPOSE

To describe the procedures for monitoring and tracking not-ready-for-issue Depot Level Reparable (DLR) carcasses to be returned to the supply system.

II. DISCUSSION

The transfer of Inventory Control Point (ICP) managed DLRs into the stock fund will not diminish the need for effective carcass tracking to ensure their prompt return to the depot for repair. Repair of Not-Ready-For-Issue (NRFI) carcasses is the most cost effective method of supply management. Under the stock fund proposal, carcass tracking is an integral part of the stock fund pricing and credit policy which requires that either the customer be billed for the failure to return the carcass or the stock fund absorb the loss. As such, there will be a continuing need to monitor carcass returns and to identify those activities whose performances in returning NRFI carcasses is sub-standard.

The Navy has established the Intensified Reparable Asset Management (IRAM) program to manage the return of DLRs to the supply system for repair. The objectives of this program are to maximize carcass returns and to generate statistical reports which highlight activity performance in the processing

APPENDIX H

of carcass returns. To achieve these objectives, two specialized intensified management programs are used: the Fleet Intensified Reparables Management (FIRM) program used by the Ships Parts Control Center (SPCC), and the Closed Loop Aeronautical Management Program (CLAMP) used by the Aviation Supply Office (ASO). TAB 1 provides current statistics on the number of DLRs managed in the FIRM and CLAMP programs as related to the total number of DLRs in the system. The computer system for tracking carcasses used by both ICPs is the Uniform Inventory Control Point computer program (referred to as the B05 program).

The B05 program tracks carcasses (except CLAMP items) by a computer match of issue documents for Ready-For-Issue (RFI) units and receipt documents for NRFI units. The key data elements used by the program are the requisition number and the advice code. The requisition number identifies the activity to which a DLR has been issued, the date the request was made, and a serial number which is unique to each DLR issued. The advice code identifies a particular type of transaction. Specifically, in the case of DLRs, it identifies whether or not an NRFI carcass should be returned to the system. If an NRFI carcass is turned in, the turn-in document would bear the same requisition number as the requisition for the RFI replacement DLR. Simply stated, B05 matches turn-in documents with requisitions bearing a "should turn-in" advice

code using transaction reports in the ICP automated data files. If, after allowing sufficient time (a variable program parameter; currently 75 days) for the turn-in to occur, the requisition remains unmatched, it is printed on an exception list for manual follow-up to recover the carcass from the responsible activity. B05 also produces various summary statistics which identify activities with poor carcass turn-in performance.

Those items designated as FIRM program items are included within the B05 carcass tracking program as described above. Designated personnel are assigned to stock points and field activities to expedite the return of FIRM items but do not manually track carcasses. Management of the FIRM designated items is achieved by SPCC manual follow-up by message for those DLRs not turned in as indicated by the B05 computer reports.

CLAMP carcass tracking is a manual system for selected aviation DLRs. This system depends on personnel assigned specifically for this purpose to the activity to which CLAMP NRFI carcasses are returned. The carcasses are tracked as follows:

-- A replacement RFI DLR is issued only when these personnel receive a message stating that an NRFI carcass is being returned.

-- The carcass tracking loop is closed when these personnel physically receive the carcass and submit a report acknowledging receipt.

Clearly, the CLAMP carcass tracking system provides more positive control. However, it is also manpower intensive and thus expensive. Therefore, only the most critical, expensive DLRs (currently 20% of the universe) are managed under CLAMP. CLAMP is a very labor intensive program. Currently 115 civil service and 67 contractor personnel are funded in CLAMP. Although these people are not totally occupied by carcass tracking, a sizeable segment of their time is involved in carcass tracking.

III. CONCLUSION

Under any DLR funding arrangement an effective carcass tracking system is necessary. However, the amount of effort required to maintain high carcass return rates could be sensitive to the method of funding DLRs. Under the current system, return rates are maintained by a "policy" strategy with no financial incentive on the customer's part. Under the stock fund alternative, the element of financial incentive is added. This element, over time, could reduce the labor required to maintain acceptable carcass return rates. This is an especially attractive consideration in CLAMP.

CARCASS TRACKING STATISTICS

SPCC

	FIRM	TOTAL DLRs
DLRs	2,200	70,653
DLRs as a percent of Total	3.1%	
Inventory Dollar Value ($ in millions)	$ 230	$1,100
Inventory Dollar Value as a percent of Total	20.9%	
Ship Carcass Return Rate (excluding SSPO 6A/H/X COGs)	91.0%	88.6%

ASO

	CLAMP	TOTAL DLRs
DLRs	11,000	54,029
DLRs as a percent of Total	20.3%	
Inventory Dollar Value ($ in millions)	$ 688	$2,900
Inventory Dollar Value as a percent of Total	23.7%	
Aviation Carcass Return Rate	96.9%	95.6%

TAB 1

STOCK FUND PRICING POLICY/SURCHARGE

I. PURPOSE

To define what the Stock Fund Surcharge is, what it does, and how the surcharge for Depot Level Reparables (DLRs) was calculated.

II. BACKGROUND

Inherent in the concept of a revolving stock fund is the principle that all costs must be recovered by sales of assets to customers. This is accomplished by means of a surcharge applied to the price of every item so that the sale of that item produces revenues equal to the item's replacement cost plus the surcharge percentage. The standard price is published annually (1 October) after an individual computation for all items.

III. DISCUSSION

The standard price is utilized in the stock fund to determine stock fund requirements for full funding, to maintain the revolving nature of the fund and to maintain an appropriate income/outflow stock fund cash balance. The standard price consists of:

-- Replacement Price (Procurement Cost)

-- Navy or Marine Corps Surcharge added by each Service.

-- OSD Surcharge

APPENDIX I

The Service surcharge is applied to recover inventory costs such as stock losses, obsolescence, and transportation. The OSD surcharge is added primarily to cover the cost escalation that is projected to be experienced on all stock fund replenishment procurements. Transfer of DLRs to the stock fund would require that every item have a standard price which would insure that stock fund costs would be recovered. A method of analyzing or developing a surcharge and the credit policy is to use the classic sources and uses of funds approach similar to the cash flow statement in commercial business. In this context the objectives of the Service DLR surcharge and credit policy become:

-- To recover enough funds from the issue of DLRs (source of funds) to finance supply system inventories (use of funds).

-- To recover enough funds from the issue of DLRs to finance the replenishment of supply system inventories.

-- To recover enough funds from the issue of DLRs to finance the depot repair program.

There are two policy instruments available to the inventory manager to accomplish the objectives described above; the stock fund standard price policy and the credit, or net price policy described in Appendix J. The following apportions the various costs to be recovered by each policy instrument:

	COSTS	RECOVERED BY
A.	Outfitting Costs (Primarily COSAL, AVCAL)	Pricing Policy (Standard Price)
B.	Replenishment of Field Attrition (Failed unit cannot be returned to the system for repair)	Pricing Policy (Standard Price)
C.	Supply System Inventory Costs (Primarily depot repair pipeline assets and safety levels)	Pricing Policy (Surcharge)
D.	Depot Repair Costs	Credit Policy (Net Price Charged)
E.	Cost of items which do not survive the depot repair process (depot washouts)	Credit Policy (Net Price Charged)

Outfitting and field attrition are issues to end users which do not result in an NRFI carcass being returned to the supply system. In these cases, costs are recovered directly because the customer is charged the full cost (standard price) of the item. Supply system inventories in the repair pipeline and safety levels represent long term investments which have little likelihood of being issued to an end user except as an exchange for a returned carcass. These costs must be recovered by applying a surcharge to issues. Similarly, the cost of depot repair and the cost of items which do not survive depot repair (depot washout) must be recovered by means of the

net price charged to the customer when he requisitions a replacement DLR from the supply system in exchange for a NRFI carcass.

The surcharge is basically a tax levied on DLR issues. Like other taxes, the revenue is used to cover the costs of some segment of operations. This surcharge is expressed as a percent of the procurement cost (replacement price) of the item (expressed as 100%).

The cash received from the sale of an asset at standard price is used to cover the replenishment of the DLR inventory and to finance the cost of maintaining the DLR assets in the supply system as shown below in the following example:

FUNDS SOURCE		FUNDS USE
Replacement price	100%	Replenishment system assets
Service surcharge	10%	Finance inventory levels, obsolescence, stock losses, transportation, etc.
OSD surcharge	5%	Offset cost escalation
Standard Price	115%	

The Service surcharge rates are basically derived by dividing the total pipeline investment costs by the net taxable issues. In simple terms, the methodology is as follows:

A. Determine the "tax" base (total "taxable" issues).

B. Determine inventory and pipeline investment costs to be recovered.

C. Divide B by A.

TAB 1 portrays the calculation of the required DLR Service surcharge using FY 1975-78 data.

IV. CONCLUSION

The costs (inventory and depot repair) associated with maintaining DLRs in a revolving stock fund must be recovered by means of a surcharge applied to the standard price of every item sold to customers and a net price for DLRs requisitioned in exchange for an NRFI carcass. These costs can be recovered through the use of the pricing policy described above.

DLR SERVICE SURCHARGE DERIVATION

FY 75 - FY 78 DATA
($ - Millions)

	AVIATION	SHIP	MARINES (FY 76-78 Data)
TAXABLE ISSUES -			
Outfitting Issues	683	346	27
Replacement Issues			
With Carcass Return	6,053	671	64
Without Carcass Return	187	128	1
A. TOTAL TAXABLE ISSUES	6,923	1,145	92
PIPELINE INVESTMENT COSTS -			
Total Procurement Funding			
(Includes Creditable Returns)	1,384	646	54
Less -			
Outfitting Issues	683	346	27
Replacement Issued W/O Carcass Returns	187	128	1
Depot Washout (Not recovered by Surcharge but recovered by Credit Policy.)	121	70	8
B. PIPELINE INVESTMENT TO BE FINANCED BY SURCHARGE	393	102	18
SURCHARGE RATE IS B DIVIDED BY A	6%	9%	20%

STOCK FUND CREDIT POLICY

I. PURPOSE

To describe the method by which credits would be granted from the stock fund for the return of Depot Level Reparables (DLRs) to the supply system.

II. DISCUSSION

The objective of a stock fund credit policy is to encourage the return to the supply system of material not needed by the user. Current Department of Defense policy, as promulgated by DODD 7420.1, Regulations Governing Stock Fund Operations, calls for credit to be granted to the customer for a returned item if the inventory manager forecasts a requirement to procure the item prior to the end of the budget year. This policy has been implemented by a procedure whereby the inventory manager is interrogated to determine his need for the material. If he forecasts a requirement to procure the item prior to the end of the budget year, credit is granted equal to the standard price. If his available assets total less than the economic retention limit but there is no requirement to procure prior to the end of the budget year, the material is accepted without credit to the customer. If current available assets equal or exceed the economic retention limit, the customer is advised to effect disposal of the item.

APPENDIX J

Certain revisions to the current credit procedures are required if DLRs are to be financed in the stock fund. Such revisions must balance the financial risk to the stock fund and customer workload because of limited manpower resources. Key revisions which had to be defined and dealt with are "what are creditable returns," "the amount of the credit" and the "timing of the credit." Each of these issues is developed in a subsequent paragraph.

A. Credit for Returns

Full credit (standard price) would be granted for the return of excess items to the supply system for which the inventory manager forecasts a requirement to procure the item prior to the end of the budget year. In the Marine Corps, credit would be granted for every offer to return, made through the Recoverable Item Report process, which the inventory manager accepts. The existing interrogation procedure would remain in effect for customers desiring to turn in excess items whether these items are Ready-For-Issue (RFI) or Not-Ready-For-Issue (NRFI) carcasses. The interrogation procedure would be modified, however, to allow for the granting of a net price credit (difference between the standard price and the repair cost) for an RFI item for which no procurement requirement is forecast but for which a repair requirement is forecast prior to the end of the budget year. Additionally, a credit will be granted to a customer who has been issued a non-OSI

(non-allowance) item when an intermediate maintenance activity is able to repair the NRFI carcass. This credit will equal the net price which was charged the customer when the issue was made and is explained in paragraph B below. No financial transactions are applied if the replacement item is issued from the OSI level of inventory and the turn-in can be repaired.

B. <u>Amount of Credit</u>

The amount of credit granted for a returned unit should be equal to the residual value of that unit to the supply system. Accordingly, the following describes the manner in which credit would be computed for stock funded DLRs.

Credit granted for the return of NRFI carcasses would be based upon consideration of the following factors:

-- projected average repair cost

-- depot level survival rate (the probability of the NRFI unit being repaired)

-- the OSD surcharge for procurement cost escalation

If the average cost of repair is one half the cost of new procurement, the customer making the return would find that the credit granted would be less than 50 percent. Experience has shown that not all carcasses for which credit would be granted can be repaired by the depot, therefore the value of NRFI carcasses must be decreased to reflect the probability that some carcasses may be unrepairable. In addition, the credit

must be further decreased by a portion of the OSD surcharge. The amount of the OSD surcharge decrease would equal the value of the surcharge divided by the number of repairs anticipated. TAB 1 provides an example of the calculation of the net price which establishes the credit which would be granted.

C. Timing of Credit

To minimize customer workload, credit would be granted at the same time the replacement RFI unit is issued. Specifically, the NRFI carcass turn-in documentation would reference the requisition number of the unit issued. This requisition would contain an advice code indicating that an NRFI carcass would be turned in on an exchange basis under the same document number as that used in the requisition; or, an advice code indicating that the unit being replaced must remain in place until receipt of a replacement unit and would then be turned in on the same document number as that used in the requisition.

Under the revised credit policy, customers would be charged a net price when ordering and turning in an NRFI carcass. The net price would be the standard price reduced by the credit amount described above. Each stock numbered DLR would in effect have two prices -- a standard price and a net price. The relationship between the standard price, net price and credit are reflected in the following equations:

Credit = Standard Price - Net Price

Net Price = Standard Price - Credit

The net price would be computed by item and, as with the standard price, would be recomputed and promulgated annually.

III. REVISED BILLING PROCEDURES

For wholesale system stocks, transactions of each DLR issue would be accommodated in the Centralized Accounting and Billing (CAB) system which would use Transaction Item Reports as the basis for billings. The DLR issue transaction report would form the basis of the inventory manager's bill to the appropriate account via the assigned accounting activity. If stock points are also Authorized Accounting Activities for funds being charged, the stock point reporting the issue transaction would be responsible for applying the charge to the proper appropriated funds. In the case of non-CAB activities, net billing to the customer would be processed locally using the same financial transactions as the ICP would use for transactions at CAB activities.

The advice code contained in the requisition indicating that an NRFI carcass would be turned in would cause the inventory manager or non-CAB activitiy to establish a suspense file which would be cleared when the carcass is returned to the inventory manager or non-CAB activity (all transshipments from non-CAB activities will continue to be processed through the activity's supply department). The Marine Corps would use this technique only when the ICP has directed the return of the carcass. In the event that no carcass appeared within 75 days

after the transaction date of the issue, the customer would be requested to provide information on the NRFI carcass turn in. If reply indicates no turn-in made (or if no reply received within 21 days of follow-up), the customer would be billed for the difference between the standard price and the previously billed net price. If the customer's reply shows that turn in was accomplished, the inventory manager (or non- CAB activity) would continue to look for the NRFI carcass. If no carcass was returned within 120 days from the date of the issue transaction report, the value of the difference between standard and net price (i.e., credit granted) would be reflected as a carcass return loss. The value of the loss would be used in making the necessary adjustments to the DLR surcharge.

In order to ensure the customer is billed a net price, to provide a capability to trace the value of material in transit, and to fix responsibility for losses, three financial inventory ledger codes must be created. This is a procedural problem which can be solved with little additional effort. This subject and its solution are addressed in TAB 2.

IV. OTHER CREDIT POLICIES EXAMINED

Before arriving at the selected credit policy, several alternatives were analyzed and rejected. Four of these alternative policies which were examined along with the advantages and disadvantages of each are described in TAB 3. The alter-

natives are listed in the order of highest to lowest risk to the stock fund. Alternative C is the credit policy which was selected to balance the increased customer workload against the incentive for increasing carcass returns and financial risk to customers and the stock fund.

V. SUMMARY

The revised credit policy would grant credit immediately to the customer turning in a carcass or indicating, by an advice code, the intent to turn in a carcass at a later time. In the case of the Marine Corps, credit would be granted when an offer to turn in a carcass is accepted. The price charged for the DLR would be a net price reflecting the difference between the standard price and the credit amount.

EXAMPLE CALCULATION OF THE STOCK FUND CREDIT

FOR RETURN OF AN NRFI DLR

Consider the example of a DLR with the following characteristics:

Last Replacement Cost	\$100
Repair Cost	\$ 30
Survival Rate	90%
Annual NRFI Returns	10 per year.

For the purpose of this example the Service surcharge is assumed to be 10% and the OSD surcharge (for procurement price escalation) is assumed to be 5%.

To compute the credit to be allowed for each NRFI return one must calculate the total cost to be recovered on each return and subtract that amount from the standard price. The following is a step-by-step derivation of the credit:

Step 1: Determine the Standard Price:

Standard Price = Replacement Cost + Service Surcharge + OSD Surcharge

For example:

\$100	=	Replacement Cost
\$ 10	=	Service Surcharge
\$ 5	=	OSD Surcharge
\$115	=	Standard Price

TAB 1

Step 2: Determine the total cost to be recovered on each return:

During a one year period 10 units will be returned. Of these 10, nine will survive depot repair (10 x 90% survival rate) and one will wash out. Therefore, funds must be recovered during the year to repair nine units and to buy one replacement unit. The yearly repair cost is $270 (9 x $30 repair price). The replacement cost is $105 ($100 Last Replacement Price + $5 for OSD Surcharge for procurement price escalation). Additionally, $100 (10 x $10 Service Surcharge) must be recovered to help finance supply system pipeline stocks (repair cycle and safety level). Summarizing, during the year the following costs must be recovered:

$270	=	Repair cost for nine items
$105	=	Replacement cost for one item
$100	=	Surcharge for ten items
$475	=	Total cost for repair of nine items and procurement of one item

Dividing the $475 by the 10 returns yields $47.50 which must be recovered from each return.

Step 3: The credit is calculated by subtracting $47.50 (cost to be recovered on each return) from $115 (standard price) which yields $67.50 as the credit value.

TAB 1

FINANCIAL TRANSACTIONS REQUIRED UNDER PROPOSED CREDIT POLICY

The financial accounting entries required to implement the proposed credit policy will accomplish three (3) main objectives:

1. Assure customer is billed at net (discounted) price, i.e., Standard Price less credit allowed.
2. Provide capability to track value of NRFI material in transit (pipeline) for which credit has been allowed.
3. Provide capability to track the value of credit lost when the NRFI carcass is never received so that surcharge may be recomputed when necessary.

The procedure will require the use of three (3) Financial Inventory Report (FIR) codes in use today and the creation of three (3) new Navy FIR codes (and similar Cash Analysis Codes for the Marine Corps) which are defined as follows:

Current FIR Codes

J1 - Issues of material at sales price with charge to Navy appropriations.

N6 - Financial adjustment loss resulting from price reductions.

E3 - Financial adjustment gain representing the difference between the standard price of the carcass returned and the amount of credit allowed.

New FIR Codes

B3 - (Receipt without Reimbursement) -- Exchange of NRFI carcasses for which credit has been allowed.

E7 - (Financial Adjustment Gain) -- Value of credit allowed on an exchange of repairable material which has not been returned.

N7 - (Financial Adjustment Loss) -- Value of credit allowed on an exchange of repairable material which has not been returned.

Example of Transactions Required

The following example of the financial transactions required under the proposed credit policy is structured to reflect the issue of three (3) items (Items A, B and C), from a total inventory of 10 items, to a Navy customer with credit granted at the time of issue based on an advice code indicating that an NRFI carcass would be turned in. The example proceeds through each step of the financial transactions to indicate the actual receipt of one NRFI carcass (Item A); the non-receipt of one carcass (Item B); and, the value of one carcass still in the pipeline (Item C).

Assumption: Total Inventory (10 items @ $115)		$1,150
Standard Price	$115	
Credit Allowed	67.50	
(Net) Price	$ 47.50	

TAB 2

Step #1	Issue of three RFI Items to Navy Customer with Credit Allowed (Items A, B and C)		
	Beginning Inventory		$1,150
	FIR Code J1 - Issue at Net Price	$-142.50	
	FIR Code N6 - Loss by Price Reduction (Credit)	-202.50	-345
	Ending Inventory		$ 805
Step #2	NRFI Carcass Received (Item A)		
	Beginning Inventory		$ 805
	FIR Code B3 - Receipt of one NRFI carcass (Recorded at amount of credit)	$ 67.50	
	FIR Code E3 - Discount on Returns	47.50	$ +115
	Ending Inventory		$ 920
Step #3	One NRFI Carcass Not Received (Item B)		
	Beginning Inventory		$ 920
	FIR Code E7 - Value of Credit (Gain)	$ 67.50	
	FIR Code N7 - Value of Credit (Loss)	-67.50	-0-
	Ending Inventory		$ 920

Step #4 Value of Carcass Still in Pipeline (Item C)

The value of the NRFI carcasses still in the pipeline is computed as follows:

TAB 2

FIR Code N6		$ 202.50
Less FIR Code B3	(Item A)	67.50
		$ 135.00
Less FIR Code N7	(Item B)	67.50
Pipeline	(Item C)	$ 67.50

The value recorded in FIR Code N7 represents the amount of loss sustained by the stock fund for non-receipt of the carcass for which credit was allowed.

Credit Policy Alternatives

Alternative A

Description of Policy	Impact on Customer Workload	Other Advantages	Other Disadvantages
IM will initiate credit when carcass which can be related to a Requisition for a replacement unit becomes visible. Credit will be equal to the average value of a NRFI carcass (Standard Price Minus Average Repair cost Times Average depot level survival rate).	Significant increase due to necessity to process separate financial documents for both issue (Sale) and carcass Return (credit).		
		To the Stock Fund	
		- A carcass is received for every credit granted. - some carcasses received without credit being granted.	
		To the Customer	
		- Single price used on all requisitions	- Potential long wait for credit. - Potential for no credit when carcass is lost in system. - Problem with credits received at end of FY not being useable because of late receipt.
		Other	
		- Most direct financial incentive - least change from today's system	

Credit Policy Alternatives

Alternative B

Description of Policy	Impact on Customer Workload	Other Advantages	Other Disadvantages
Immediate Credit will be granted indirectly in that the requisitioner will obligate and be billed in an amount (published in the MLN) equal to the average value of an NRFI carcass (Standard Price minus average repair cost times average depot level Survival Rate).	Significantly less than Alternative A but greater than present	**To the Stock Fund**	
		- A carcass is received for every credit granted	- Credit is granted before carcass is received
Advice Code 5G Requisitions ("Requested item is a mandatory turn-in reparable for which an unserviceable unit will be turned in on an exchange basis under the same document number as that used in the requisition.") or 5X Requisitions ("Requested item is required for stock replenishment of a mandatory turn in repairable for which unserviceable units have been or will be turned in for repair.")		**To the Customer**	
		- Credit is immediate - No "managing end of FY credits" problem	- will pay for carcass lost in supply system after turn-in accomplished
If carcass does not become visible to the IM within 75 days of requisition date, IM will attempt to ascertain carcass status. If unable to locate within 105 days of requisition date, the requisitioner will be billed for the difference between the standard price and the net price (previously billed price).		**Other**	
		- None	- Less direct financial incentive than alternative A.
Advice Code 5S Requisitions ("Remain-in-place certification. Requested item is a mandatory turn-in reparable for which an unserviceable unit will be turned in on an exchange basis after receipt of a replacement (serviceable) unit. Turn-in will be on the same document number as that used in the replenishment requisition").			
If carcass does not become visible to the IM within 75 days of issue of the RFI Replacement unit IM will attempt to ascertain carcass status. If unable to locate within 105 days of issue date the requisitioner will be billed for the difference between the standard price and the net price (previously billed price).			

Credit Policy Alternatives

Alternative C

Description of Policy	Impact on Customer Workload	Other Advantages	Other Disadvantages
Same as B except the IM will (rather than attempt to ascertain status of the carcass) ask the requisitioner if carcass was returned and if so when, to whom, etc. If not, warns him that additional charge will follow.	Nearly the same as alternative B. Somewhat less because positive response to follow up will not result in an additional charge being lodged against customer.	**To the Stock Fund**	
		- A carcass is received for most credits granted	- Credit is granted before carcass is received - credit is granted for some carcasses that are never received - carcasses reported as turned in but never found by IM must be priced out for possible surcharge increase at later date.
		To the Customer	
		- credit is immediate - no "managing end of FY credits" problem - gets credit for every carcass returned	- none
		Other	
			- less direct financial incentive than alternatives A or B. - New FIR captions required to accumulate credits granted /no carcass received

Credit Policy Alternatives

Alternative D

Description of Policy	Impact on Customer Workload	Other Advantages	Other Disadvantages
Immediate credit will be granted indirectly in that the Requisitioner (using a Demand Code "R" (Recurring) and a Service Code "R" (Pacific Fleet), "V" (Atlantic Fleet) or "N" (shore activity) will obligate and be billed in an amount (published in the MLN) equal to the average cost of total Navy attrition experienced per replacement issue (Standard Price Minue Average Repair Cost Times Average Depot Level Survival Rate Times <u>Average carcass Return Rate)</u>.	Somewhat less than Alternative C because additional charges will never be lodged against customer.		
		To the Stock Fund	
		- None	- Credit is granted before carcass is received - credit is granted for <u>many</u> carcasses that are never received
		To the Customer	
		- Credit is immediate - No "managing end of FY credits" problem - Always requisition replacements at one price	
		Other	
			- <u>NO</u> direct financial incentive to return carcass - items can be purchased at net price and returned immediately for credit at standard price.

CUSTOMER FUNDING OPTIONS

I. PURPOSE

To describe the options considered in determining customer funding responsibility and the principles used in selecting the recommended option for the stock funding of Depot Level Reparables (DLRs).

II. BACKGROUND

DLRs are presently procured from commercial sources with procurement appropriation funds managed by the Naval Material Command (NMC) and Headquarters, Marine Corps (HQMC). These funds finance the procurement of spares for interim support, initial outfitting, follow-on outfitting, replenishment requirements, and the modification change kits for DLRs. Additionally, the procurement appropriations fund the labor costs for installing the modification change kits for DLRs at commercial sites. The depot repair of DLRs, both organic and commercial, is funded in the Operation and Maintenance appropriations and managed by the NMC and HQMC. DLRs are provided by the NMC and HQMC central managers free of charge in the form of allowances to the users. When DLRs are consumed or become unserviceable and cannot be repaired by the user, they are returned to the central managers who fund their replacement or repair without charge to the user.

APPENDIX K

The transfer of DLRs to the stock funds will change the manner in which DLRs are funded. Exclusive of interim support and modification change kits which will continue to be funded by the procurement appropriations, the stock funds will assume the responsibility for the procurement and repair of DLRs. Because the stock funds are revolving working capital funds, they must be reimbursed for material issues to the customers that derive benefit from stock funded material.

III. DISCUSSION

In developing the options which were considered for establishing customer funding responsibility, the study group decided that there should be a consistent application of funding responsibility for all material purchased from the stock funds, whether consumable repair parts currently funded in the stock funds or DLRs. To determine the funding responsibility, the organizational and appropriation responsibilities must be established, for they form the basis for selecting the option chosen by the study group. The budgeting principles for these responsibilities are:

A. Organizational Responsibility

The organization(s) with the most control over the determination of requirements should administer the funding for the requirement, i.e., the organization that establishes the requirement should fund it.

B. Appropriation Responsibility

The appropriation which provides the greatest flexibility to adjust to changes in timing and cost of the requirement should finance the requirement.

Tab 1 is a chart which displays the four Navy customer options considered by the study group. The chart illustrates the various appropriation and organizational arrangements for purchasing ship and aviation material from the Navy stock fund. It further illustrates the two basic cost elements of DLRs -- allowances and consumption.

The two principal types of allowances are the Consolidated Shipboard Allowance List (COSAL) to support equipment installed in ships and the Aviation Consolidated Allowance List (AVCAL) which supports equipment installed in aircraft. These allowances are outfitting spares which are determined primarily by the Hardware Systems Commands. Additionally, the funding requirement for these allowances may shift between fiscal year depending on the delivery date of the end item. This is particularly true for the initial outfitting of new ships and carrier AVCALs. The funding requirement for changes to COSALs (because of the addition of new equipment on the ship) and for AVCALs (because of changes in aircraft deck loads between deployments) can also shift between fiscal years.

Consumption of the material provided by these allowances would be a current year operating cost to the user.

With DLRs funded by the stock fund, shore activity allowance material would be funded in the stock funds in the same manner as it is now for consumable repair parts. The consumption of this stock funded allowance material would be funded by the operating funds of the activity, e.g., the Naval Industrial Fund for industrial activities, the Research, Development, Test and Evaluation, Navy, appropriation for research laboratories, and O&M for Fleet Naval Air Stations.

IV. CONCLUSION

Using these budget principles, the study group concluded that the funding of COSAL and AVCAL allowances should be the organizational responsibility of the NMC and HQMC and should be funded in the multi-year procurement appropriations they administer. Further, it was concluded that the consumption of allowance material should be funded by customer O&M operating funds. Applying these conclusions to the options listed in TAB 1, the study group selected option D as the recommended option for stock funding DLRs.

NAVY CUSTOMER FUNDING OPTIONS (CONSUMABLES & DLRs)

OPTION	SHIPS				AVIATION			
	ALLOWANCES		CONSUMPTION		ALLOWANCES		CONSUMPTION	
	INITIAL	CHANGES	FLEETS	OTHER USER	INITIAL	CHANGES	FLEETS	OTHER USER
A	SCN	O&M (FMP)	O&M (OPTAR)	OP FUNDS (USER)	O&M (AVCAL)	O&M (AVCAL)	O&M (AFM)	OP FUNDS (USER)
B	SCN	O&M (FMP)	O&M (OPTAR)	OP FUNDS (USER)	O&M (OUT-FITTER)	O&M (OUT-FITTER)	O&M (AFM)	OP FUNDS (USER)
C	SCN	O&M (FMP)	O&M (OPTAR)	OP FUNDS (USER)	APN	O&M (FMP)	O&M (AFM)	OP FUNDS (USER)
D	SCN	OPN/ WPN	O&M (OPTAR)	OP FUNDS (USER)	APN	APN	O&M (AFM)	OP FUNDS (USER)
DLRs Today	SCN	OPN/WPN	OPN/WPN PROCUREMENT O&M REPAIR		APN	APN	APN PROCUREMENT O&M REPAIR	

SCN - Shipbuilding and Conversion, Navy--NAVMAT Funds
OPN - Other Procurement, Navy--NAVMAT Funds
WPN - Weapons Procurement, Navy--NAVMAT Funds
APN - Aircraft Procurement, Navy--NAVMAT Funds
OUTFITTER - SYSCOMS
OP FUNDS - Operating Funds Other Than Fleet O&M

O&M - Operations and Maintenance, Navy
- o AVCAL - Aviation Consolidated Allowance List (Fleet Funds)
- o FMP - Fleet Modernization Program (NAVMAT Funds)
- o AFM - Aviation Fleet Maintenace (Fleet Funds)
- o OPTAR - Operating Target (Fleet Funds)

TAB 1

CUSTOMER FUNDS REQUIRED AND SOURCE OF FUNDS

I. PURPOSE

To discuss the method of determining the customer funding and the source of funds to fully fund the customer requirements.

II. BACKGROUND

On the date of implementation of the transfer of DLRs to the stock funds, all supply system assets would be transferred and all subsequent issues of DLRs (other than requirements previously funded by the Shipbuilding and Conversion, Navy (SCN) appropriation) would be charged to the customer.

III. DISCUSSION

Prior to the transfer of DLRs to the stock funds, the customers would have very little information upon which to base an adequate estimate of funds required in order to justify their budget requests. Accordingly, the estimate of requirements and the source of funds to augment customer budgets would have to be made at the Headquarters level and provided to the customers for inclusion within their budgets. The following description of the procedures for making these estimates is provided to demonstrate the method which would be used and the result of using this method based on the FY 1980 data included in the budget submission to OSD/OMB.

A. Customer Funding Requirements

Customer funding requirements were developed using customer demand data as contained in the Navy DLR budget submissions for APN, OPN, WPN, O&MN, and the Marine Corps submission for PMC and O&MMC. The method used was to develop funding requirements separately for; (1) FY 1980 new customer demands (requisitions); and, (2) existing customer backorders at the time of transfer. Each of these separate calculations required consideration of the impact of the net price credit and the Navy and OSD surcharges. TAB 1 displays the SPCC and ASO DLR gross issue projections for FY 1980. From these values the Replacement-In-Kind (RIK) issues (i.e., reimbursable issues to FMS or other Services) were subtracted which produces the net Navy issues. Net Navy issues were then broken into the following categories:

Category	SPCC	ASO
o SCN	X	-
o Other Outfitting	X	X
o Non-OSI Items during IMA Repairs	-	X
o Field Attrition	X	X
o Issues with Carcass Return	X	X

Since SCN funded material on hand or on order on the date of transfer would be issued without reimbursement, such issues were excluded from customer funding requirement computations. Since the net price charged would be credited to the customer

for the return to the supply system of non-OSI DLRs repaired by the Intermediate Maintenance Activities, the projected value of the issue of these DLRs was excluded from customer funding requirements.

Subtracting these issues from the total produces the value of regular recurring replenishment issues. By using the value of these issues and applying the budgeted carcass return rate, the value of issues with carcass return and the value of issues without carcass return (field attrition) was developed.

The next step in the determination of customer funding requirements was to calculate the value of the issues with carcass return by using the net price. TAB 2 reflects the net price calculation by COG.

To each of the above issue categories must be added the appropriate surcharges. In addition, consideration was required of: (1) those anticipated credits that would be granted to customer accounts for interrogation and return to the system of DLRs no longer required by the customer; and, (2) the anticipated price changes (procurement cost escalation) not normally reflected in issue values contained in procurement account budget submissions. Procurement appropriation budgets are constructed using current year prices. While funding requirements included in these budgets are escalated to recognize anticipated price escalation for the procurement of the

items, other budgetary data (inventory values, issue values and on order values) are not escalated. Transferring DLRs to the stock fund would require that customers' requirements be escalated to the time of issue of the DLR. Therefore, the price out of field attrition issues must be increased by the OSD provided escalation factor. Outfitting issues were not similarly increased because they were considered to have been recently procured and, therefore, priced accurately. Issues with carcass return were priced at the net price -- a value which does include OSD cost escalation factors for repair. TAB 3 displays these calculations.

Funding required for backordered requisitions was developed in a similar manner; i.e., the projected value of backorders as of the end of FY 1979 was taken from DLR budgets, prorated to the previously constructed issue category (SCN, other outfitting, field attrition and issues with carcass return), and priced using the net price as appropriate including the surcharge. TAB 4 displays these calculations.

The total customer funding requirement is obtained by adding the current year funding requirement and the beginning backorder funding requirement. TAB 5 displays these calculations.

TAB 6 shows the computation of total customer funding requirements for the Marine Corps which were developed in the same manner as the Navy customer requirements.

B. Source of Funds Available

Since procurement and repair of DLRs will be accomplished by the stock funds, the procurement and O&M appropriations funding currently programmed for FY 1980 would not be required for that purpose. TAB 7 summarizes these funding sources (using the minimum vice basic level in the FY 1980 budget). In addition, because the stock fund would begin collecting cash as issues of DLRs are made, but would not begin making cash expenditures until the end of financial lead time, the stock fund would experience a one time cash accrual. The expenditure (cash outflow) lag results because on the day of transfer the stock fund would inherit a procurement and repair pipeline funded with prior year appropriated funds. For DLRs, financial lead time equates to the repair turn around time (TAT) for that portion of issues that are *satisfied by repair*, and the production lead time (PLT) for that portion of issues that are satisfied by procurement. Since TATs and PLTs are known, the DLR cash expenditures can be computed. Comparing expenditures with collections from the issue of DLRs produces the gross amount of cash accrual. Subtracting the increased stock fund cash requirement (15 days of business) produces the net cash accrual. TAB 8 provides these calculations.

TAB 9 shows the determination of total available funding for the Marine Corps.

C. Net Funding Realignment

A comparison of customer requirements and the available sources to fund these requirements shows that funding is available to fully fund all customer requirements. In addition, there is a residual cash accumulation of over $300 million. TAB 10 summarizes these calculations.

The preceding discussion addresses the funding of DLRs only. However, as indicated in Chapter 4, realignment of funds would also be required to accommodate the transfer of responsibility for funding the outfitting of items currently stock fund financed from fleet held O&MN funds to NAVAIR managed APN funds (for Carrier AVCALs) and from NAVSEA managed Fleet Modernization Program O&MN funds to NAVSEA and NAVELEX managed OPN or WPN funds (for changes to COSALs).

Lastly, allocation of the increased customer funding to the various funds holders has not been addressed. The following describes the general method of allocating to customers the increased funding that would be required as a result of stock funding DLRs.

1. From ICP budgets, determine the value of planned outfitting issues; apply the appropriate surcharges and allocate the funds to the appropriate procurement account (APN, WPN or OPN).

2. From ICP files, extract by COG and by UIC the historical recurring demand data subdivided into:

a) demands with an advice code indicating carcass has been, or will be, returned to the system, and

b) other demands.

3. Price out (including appropriate surcharges) Paragraph 2 above using the net price for Paragraph 2(a) and the standard price for Paragraph 2(b).

4. Make appropriate adjustment for issues to customers from other than Transaction Item Reporting activities.

5. Reconcile 3 and 4 above to previously developed total customer current year funding requirements.

6. From ICP budgets, determine the forecast level of backorders, prorate to the appropriate customer UICs and price out (as above).

7. Add customer current year funding requirements and customer backorder funding requirements.

8. Consolidate UICs under each Major Claimant or Type Commander as appropriate.

The following are the major customer accounts that would receive funding augmentation:

Supply and Equipage

Aviation Fleet Maintenance

Ship Overhaul & RA-TA

Procurement Account Outfitting

Aircraft Rework

SYSCOM Hardware Repair

Repair of Other Vessels

RDT&E

Among other lesser accounts that would receive funding augmentation are:

Augmenting SCN for the surcharges

Increasing the corpus of the Industrial Funds.

CUSTOMER FUNDING REQUIRED(WITHOUT SURCHARGES ADDED)

FY 1980 BUDGET BASE

($ in millions)

		SPCC DLRs	ASO DLRs	TOTAL
A.	Gross Issues	567.6	2,262.3	2,820.9
B.	Less: RIK	(16.8)	(27.8)	(44.6)
C.	Navy Issues	550.8	2,234.5	2,785.3
D.	Less: 1. SCN Outfitting	(29.8)	-	(29.8)
	2. Other Outfitting	(103.4)	(115.4)	(218.8)
E.	Total Recurring Replenishment	417.6	2,119.9	2,536.7
F.	Less: IMA Repairs	-	(322.0)	(322.0)
G.	Regular Recurring Replen.	417.6	1,797.1	2,214.7
H.	Return Rate %	88.6%	95.6%	
I.	Field Attrition Rate %	11.4%	4.4%	
J.	Field Attrition (line G x I)	47.5	78.4	125.9
K.	Requisitions with Carcass Return (line G x H)	370.1	1,718.1	2,088.8
L.	Net Price %*	36.9%	29.8%	
M.	Extended Net Price (line K x L)	136.5	512.4	648.9
N.	Total Base (line D2+J+M)	287.4	706.2	993.6

Attachment A provides data by COG.

*Percentage of Standard Price to be charged to customer. Represents Standard Price minus credit Allowed. See Appendix J.

TAB 1

CUSTOMER FUNDING REQUIRED - FY 1980 BUDGET BASE
(Without Surcharges)
($ Millions)

	2H	4N	4G	U Cogs	6E	4A	8H	Sub Total	2R	4R	Sub Total	Grand Total
1. Gross Issues	185.2	150.5	128.6	75.1	8.6	13.5	6.1	567.6	2,259.8	2.5	2.262.3	2,829.9
2. Less: RIK	6.4	4.3	3.0	3.1	-	-	-	16.8	27.8	-	27.8	44.6
3. Navy Issues	178.8	146.2	125.6	72.0	8.6	13.5	6.1	550.8	2,232.0	2.5	2,234.5	2,785.3
4. Less: a. SCN Outfitting	7.1	19.4	1.7	.7	-	.9	-	29.8	-	-	-	29.8
b. Other Outfitting	38.9	22.2	35.2	2.3	3.4	1.4	-	103.4	115.4	-	115.4	218.8
5. Total Recurring Replen	132.8	104.6	88.7	69.0	5.2	11.2	6.1	417.6	2,116.6	2.5	2,119.1	2,536.7
6. Less: IMA Repairs	-	-	-	-	-	-	-	-	322.0	-	322.0	322.0
7. Regular Recurring Replen	132.8	104.6	88.7	69.0	5.2	11.2	6.1	417.6	1,794.6	2.5	1,797.1	2,214.7
8. Return Rate %	83.0	92.0	93.0	92.0	68.0	81.0	83.0*	88.6	95.7	51.2	95.6	94.3
9. Field Attrition	22.6	8.4	6.2	5.5	1.7	2.1	1.0	47.5	77.2	1.2	78.4	125.9
10. Req'ns with Carcass Return (Line 7 X 8)	110.2	96.2	82.5	63.5	3.5	9.1	5.1	370.1	1,717.4	1.3	1,718.7	2,088.8
11. Net Price %	41.75	43.60	29.01	27.28	55.80	37.26	41.75*	36.88	29.81	30.06	29.80	31.07
12. Extended Net Price (Line 10 X 11)	46.0	41.9	23.9	17.3	1.9	3.4	2.1	136.5	512.0	.4	512.4	648.9
13. Total Base (Lines 4b + 9 + 12)	107.5	72.5	65.3	25.1	7.0	6.9	3.1	287.4	704.6	1.6	706.2	993.6

*Data not available. 2H values used.

NET PRICE CALCULATIONS

(Percentages)

	2H	4N	4G	U COGS	6E	4A	SPCC TOTAL	2R	4R	ASO TOTAL
1. Repair % of Procurement Price	35.40	38.90	23.22	22.25	49.60	32.87	31.53	28.25	26.99	28.25
2. (100% - Repair %)	64.60	61.10	76.78	77.75	56.40	67.13	68.5	71.75	73.01	71.75
x Depot Wash-out %	9.0	7.0	7.0	6.0	6.0	6.0	7.2	2.0	5.0	2.0
	5.81	4.28	5.37	4.67	5.54	4.03	4.93	1.44	3.57	1.44
3. OSD Surcharge	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
x Depot Wash-out %	9.0	7.0	7.0	6.0	11.0	6.0	7.2	2.0	5.0	2.0
	.54	.42	.42	.36	.66	.36	.42	.12	.30	.12
4. Base Net Price*	41.75	43.60	29.01	27.28	55.80	37.26	36.88	29.81	30.86	29.81

*Does not include any surcharges.

NOTE: Appendix J describes the calculation of Net Price

CUSTOMER FUNDING REQUIRED (WITH SURCHARGES ADDED)

FY 1980 BUDGET BASE

($ in millions)

	TAB 1 Line	SPCC DLRs	ASO DLRs	TOTAL
A. Issue Base				
1. Outfitting	D2	103.4	115.4	218.8
a. OSD Surcharge*		6.1	6.9	13.0
b. Navy Surcharge**		9.3	6.9	16.2
c. Total		118.8	129.2	248.0
2. Field Attrition	J	47.5	78.4	125.9
a. OSD Surcharge		2.9	4.7	7.6
b. Navy Surcharge		4.4	4.7	9.1
c. Total		54.8	87.8	142.6
3. Issue with Carcass Return	M	136.5	512.4	648.9
a. OSD Surcharge		-	-	-
b. Navy Surcharge***		32.9	103.1	136.0
c. Total		169.4	615.5	784.9
4. Totals Base	N	287.4	706.2	993.6
a. OSD Surcharge		9.0	11.6	20.6
b. Navy Surcharge		46.6	114.7	161.3
c. Total		343.0	832.5	1175.5
B. Less: RFI Credits		15.0	34.3	49.3
C. Plus: Escalation		9.1	16.3	25.4
D. Totals		337.1	814.5	1151.6

NOTE: Attachment A provides data by COG.

*6%

**Navy Surcharge is 9% for SPCC COGs, 6% for ASO COGs

***Values are Navy Surcharge x line K on TAB 1 (value of issues with carcass return at procurement cost). See Appendix I for discussion of surcharge development and application.

TAB 3

CURRENT FUNDING REQUIRED - FY 1980 BUDGET BASE
(With Surcharges Added)
($ Millions)

	2H	4N	4G	U COGS	6E	4A	8H	SUB TOTAL	2R	4R	SUB TOTAL	TOTAL
Outfitting	38.9	22.2	35.2	2.3	3.4	1.4	-	103.4	115.4	-	115.4	218.8
OSD Surcharge 1/	2.3	1.3	2.1	.1	.2	.1	-	6.1	6.9	-	6.9	13.0
Navy Surcharge 2/	3.5	2.0	3.2	.2	.3	.1	-	9.3	6.9	-	6.9	16.2
Total	44.7	25.5	40.5	2.6	3.9	1.6	-	118.8	129.2	-	129.2	248.0
Field Attrition	22.6	8.4	6.2	5.5	1.7	2.1	1.0	47.5	77.2	1.2	78.4	125.9
OSD Surcharge	1.4	.5	.4	.3	.1	.1	.1	2.9	4.6	.1	4.7	7.6
Navy Surcharge	2.0	.8	.6	.5	.2	.2	.1	4.4	4.6	.1	4.7	9.1
Total	26.0	9.7	7.2	6.3	2.0	2.4	1.2	54.8	86.4	1.4	87.8	142.6
Net	46.0	41.9	23.9	17.3	1.9	3.4	2.1	136.5	512.0	.4	512.4	648.9
OSD Surcharge	-	-	-	-	-	-	-	-	-	-	-	-
Navy Surcharge 3/	9.9	8.7	7.4	5.7	.3	.8	.1	32.9	103.0	.1	103.1	136.0
Total	55.9	50.6	31.3	23.0	2.2	4.2	2.2	169.4	615.0	.5	615.5	784.9
Totals Base	107.5	72.5	65.3	25.1	7.0	6.9	3.1	287.4	704.6	1.6	706.2	993.6
OSD Surcharge	3.7	1.8	2.5	.4	.3	.2	.1	9.0	11.5	.1	11.6	20.6
Navy Surcharge	15.4	11.5	11.2	6.4	.8	1.1	.2	46.6	114.5	.2	114.7	161.3
Total	126.6	85.8	79.0	31.9	8.1	8.2	3.4	343.0	830.6	1.9	832.5	1175.5
Less: RFI Credits	5.0	4.0	4.0	2.0	-	-	-	15.0	34.3	-	34.3	49.3
Plus Escalation	4.5	1.9	1.3	.8	.3	.3	-	9.1	16.3	-	16.3	25.4
Totals	126.1	83.7	76.3	30.7	8.4	8.5	3.4	337.1	812.6	1.9	814.5	1151.6

1/ 6%
2/ Navy Surcharge is 9% for SPCC Cogs, 6% for ASO Cogs.
3/ Values are Navy Surcharge X line 10 on Attachment A to TAB 1 (value of issues with carcass return at procurement cost).

Attachment A
To TAB 3

CUSTOMER FUNDING REQUIRED

(EXISTING BACKORDERS AT TIME OF TRANSFER)

($ in millions)

		SPCC DLRs	ASO DLRs	TOTAL
A.	End FY 79 Backorders	78.6	233.1	311.7
	Prorated:			
	1. SCN	4.7	-	4.7
	2. Other Outfitting	15.0	13.9	28.9
	3. Field Attrition	7.1	9.6	16.7
	4. Issue with Carcass Return	51.8	209.6	261.4
	5. At Net Price	19.9	62.5	82.4
	6. Total (lines 2+3+5)	42.0	86.0	128.0
B.	Navy Surcharge*			
	1. Outfitting	1.3	.8	2.1
	2. Field Attrition	.7	.6	1.3
	3. Issue with Carcass Return	4.6	12.6	17.2
	4. Total	6.6	14.0	20.6
C.	OSD Surcharge**			
	1. Outfitting	.9	.8	1.7
	2. Field Attrition	.4	.6	1.0
	3. Total	1.3	1.4	2.7
D.	Total (lines A6+B4+C3)	49.9	101.4	151.3

NOTE: Attachment 1 provides data by COG.

* Navy Surcharge is 9% for SPCC COGs, 6% for ASO COGs.
** 6%.

TAB 4

CUSTOMER FUNDING REQUIRED
(Existing Backorders at Time of Transfer)
($ Millions)

	2H	4N	4G	U COGS	6E	4A	8H	SUB TOTAL	2R	4R	SUB TOTAL	TOTAL
1. End FY 79 Backorders	35.4	22.4	12.6	7.3	.2	.7	-	78.6	232.5	.6	233.1	311.7
Prorated:												
a. SCN	1.4	3.0	.2	.1	-	-	-	4.7	-	-	-	4.7
b. Other Outfitting	7.7	3.4	3.5	.2	.1	.1	-	15.0	13.9	-	13.9	28.9
c. Field Attrition	4.5	1.3	.6	.6	-	.1	-	7.1	9.3	.3	9.6	16.7
d. Issue with Carcass	21.8	14.7	8.3	6.4	.1	.5	-	51.8	209.3	.3	209.6	261.4
e. At Net Price	9.1	6.4	2.4	1.8	-	.2	-	19.9	62.4	.1	62.5	82.4
f. Total (b+c+e)	21.3	11.1	6.5	2.6	.1	.4	-	42.0	85.6	.4	86.0	128.0
2. Navy Surcharge 1/												
a. Outfitting	.7	.3	.3	-	-	-	-	1.3	.8	-	.8	2.1
b. Field Attrition	.4	.1	.1	.1	-	-	-	.7	.6	-	.6	1.3
c. Issue with Carcass	2.0	1.3	.7	.6	-	-	-	4.6	12.6	-	12.6	17.2
d. Total	3.1	1.7	1.1	.7	-	-	-	6.6	14.0	-	14.0	20.6
3. OSD Surcharge 2/												
a. Outfitting	.5	.2	.2	-	-	-	-	.9	.8	-	.8	1.7
b. Field Attrition	.3	.1	-	-	-	-	-	.4	.6	-	.6	1.0
c. Total	.8	.3	.2	-	-	-	-	1.3	1.4	-	1.4	2.7
4. Total (lines 1f + 2d + 3c)	25.2	13.1	7.8	3.3	.1	.4	-	49.9	101.0	.4	101.4	151.3

1/ Navy Surcharge is 9% for SPCC Cogs, 6% for ASO Cogs
2/ 6%

Attachment A
To TAB 4

CUSTOMER FUNDING

SUMMARY OF ALL REQUIREMENTS

($ in millions)

	SPCC DLRs	ASO DLRs	TOTAL
A. Current Year Requirements			
1. Outfitting	118.8	129.2	248.0
2. Field Attrition			
a. Basic	54.8	87.8	142.6
b. Escalated	9.1	16.3	25.4
c. Total	63.9	104.1	168.0
3. Issues with Carcass Return	169.4	615.5	784.9
4. Credits for RFI Returns	(15.0)	(34.3)	(49.3)
5. Total	337.1	814.5	1,151.6
B. Beginning Backorder Requirements			
1. Outfitting Requistions	17.2	15.5	32.7
2. Field Attrition Requisitions	8.2	10.8	19.0
3. Requisitions with Carcass Return	24.5	75.1	99.6
4. Total	49.9	101.4	151.3
C. Grand Total	387.0	915.9	1,302.9

TAB 5

MARINE CORPS CUSTOMER FUNDING REQUIREMENT

($ in Thousands)

A. FY 1980 Budget Funding			
1. Development of FY 1980 Budget Base			
a. Total Marine Corps Issues			35,300
b. Less: Outfitting Issues			3,900
c. Equals: Recurring Issues			31,400
d. Return Rate:*			.99
e. Field Attrition (100%-99% x line c)			314
f. Requisitions with Carcass Return (99% x line c)			31,086
g. Net Price %			
(1) Repair % of Procure Cost		60.00	
(2) 100% - Repair %	40.00		
x Depot Washout %	13.0		
		5.20	
(3) OSD Surcharge x Depot	6.0		
Washout %	13.0		
		.78	
(4) Net Price		65.98	
h. Net Price Cost (line f x g(4))			20,511
i. Total (line b + e + h)			24,725
2. Application of Surcharges			
a. Outfitting			
(1) Base			3,900
(2) OSD Surcharge**			234
(3) Marine Corps Surcharge***			780
(4) Total			4,914
b. Field Attrition			
(1) Base			314
(2) OSD Surcharge			18
(3) Marine Corps Surcharge			63
(4) Total			395
c. Issue with Carcass Return			
(1) Base			20,511
(2) OSD Surcharge			-
(3) Marine Corps Surcharge****			6,172
(4) Total			26,683

* Includes offers to return made through the Recoverable Item Report Process.

** Six percent (6%).

*** Twenty percent (20%).

**** Value is Marine Corps Surcharge (20%) x line A1f (value of issues with carcass return at procurement cost).

TAB 6

d. Totals

(1) Base Issues	24,725
(2) OSD Surcharge	252
(3) Marine Corps Surcharge	7,015
(4) Total	31,992

B. Backorder Funding

1. Allocation of Backorders

1. Element	2. Customer Funding	3. Percentage %	4. Begin FY80 Backorders	5. Customer Funding Req'd
a. Outfitting	3,900	11.0	648	648
b. Field Attrition	314	.9	53	53
c. Issues with Carcass	31,086	88.1	5,189	-
d. Net Price (line 1c x 65.98)	-	-	-	3,424
e. Total	35,300	100.0	5,890	4,125

2. Application of Surcharges

a. Outfitting Backorders	
(1) Base	648
(2) OSD Surcharge	39
(3) Marine Corps Surcharge	130
(4) Total	817
b. Field Attrition Backorders	
(1) Base	53
(2) OSD Surcharge	3
(3) Marine Corps Surcharge	11
(4) Total	67
c. Issues with Carcass Return Backorders	
(1) Base	3,424
(2) OSD Surcharge	-
(3) Marine Corps Surcharge*****	1,038
(4) Total	4,462
d. Total Backorder Funding	
(1) Base	4,125
(2) OSD Surcharge	42
(3) Marine Corps Surcharge	1,179
(4) Total	5,346

*****Value is Marine Corps Surcharge (20%) x line B1c, Col. 4 (value of backorders for issues with carcass return at procurement cost).

TAB 6

C. Customer Funding - Summary Requirements

1. Current Year Requirements	
a. Outfitting	4,914
b. Field Attrition	395
c. Issues with Carcass Return	26,683
d. Total (line A2 d(4)	31,992
2. Beginning Backorder Requirements	
a. Outfitting	817
b. Field Attrition	67
c. Issues with Carcass Returns	4,462
d. Total (line B2 d(4)	5,346
3. GRAND TOTAL	37,338

TAB 6

FY 1980 DLR FUNDING

AVAILABLE FOR REALIGNMENT

APPN/BA	COG	($ IN MILLIONS)
SPCC DLRs		
OPN-1	2H	90.6
OPN-2	4G	55.4
	2H	11.2
	4N	1.0
OPN-3	4A	1.4
OPN-4	4N	45.6
	8H	1.0
WPN-2	6E	2.6
WPN-2,3,4	U COGS	6.5
APN-6	4A	5.0
SCN	VARIOUS	25.4
O&MN	NAVSEA COGS	87.0
	NAVELEX COGS	21.4
	NAVAIR COGS	3.8
TOTAL:		357.9
ASO DLRs		
OPN-3	4R	1.3
WPN-2	2R	.6
APN-6	2R/8R	382.5
O&MN	NAVAIR COGS	439.4
TOTAL:		823.8
GRAND TOTAL:		1,181.7

TAB 7

NAVY STOCK FUND

CASH ACCRUAL

($ in millions)

	SPCC DLRs	ASO DLRs	TOTAL
A. Repair Funding	112.2	439.4	551.6
B. Unfunded	16.8	116.3	133.1
C. Repair Requirement	129.0	555.7	684.7
D. Turn Around Time (Days)	117	56	
E. Divided by 360 days	32.6%	15.5%	
F. End of Year In Process (line CxE)	42.0	86.4	128.4
G. Expenditures for Repair (line C-F)	86.9	469.3	556.2
H. Replenishment Funding	165.9	329.3	495.2
I. Replenishment Unfunded	19.7	38.9	58.6
J. RIK	16.8	27.8	44.6
K. Initial*	53.6	53.1	106.7
L. Total	256.0	449.1	705.1
M. Procurement Expenditures**	51.4	89.8	141.2
N. Total Expenditures (line G+M)	138.3	559.1	697.4
O. Collections			
1. Navy (TAB 3, line D)	337.1	814.5	1,151.6
2. RIK	16.8	27.8	44.6
3. Total	353.9	842.3	1,196.2
P. Gross Cash Accrual (line O3-N)	215.6	283.2	498.8
Q. Increased NSF Cash Requirement			
1. Total Obligations (line C+L)	385.0	1,004.8	1,389.8
2. x 4.2% (15 days divided by 360 days)	16.2	42.2	58.4
R. Net NSF Cash Accrual (line P-Q2)	199.4	241.0	440.4

NOTE: Attachment A provides data by COG.

* No unfunded requirement exists in FY 1980 DLR Initial.

** Although average PLT is nearly a year, many items have PLTs of less than a year. It was estimated that 20% of procurement obligations would experience expenditure in the same fiscal year.

TAB 8

STOCK FUND CASH ACCRUAL
($ Millions)

	2H	4N	4G	U COGS	6E	4A	3H	TOTAL SPCC	2R	4R	TOTAL ASO	TOTAL
1. Repair Funding	39.6	33.1	21.4	14.3	1.5	2.3	-	112.2	439.0	.4	439.4	551.6
2. Unfunded	7.8	6.4	-	2.6	-	-	-	16.8	116.3	-	116.3	133.1
3. Repair Requirement	47.4	39.5	21.4	16.9	1.5	2.3	-	129.0	555.3	.4	555.7	684.7
4. TAT (days)	140	114	90	94	116	124	-	117	56	225	56	-
5. ÷ 360 days = %	38.9	31.7	.25	26.1	32.2	34.4	-	32.6	15.6	62.5	15.5	-
6. x Repair Requirement = End In Process	18.4	12.5	5.4	4.4	.5	.8	-	42.0	86.1	.3	86.4	128.4
7. Repair Requirement - In Proc. = Expends	28.9	27.0	16.0	12.5	1.0	1.5	-	86.9	469.2	.1	469.3	556.2
8. Replenishment Funded	73.4	37.6	43.9	5.5	.2	4.3	1.0	165.9	328.5	.8	329.3	495.2
9. Replenishment Unfunded	8.7	6.1	4.9	-	-	-	-	19.7	38.8	.1	38.9	58.6
10. RIK	6.4	4.3	3.0	3.1	-	-	-	16.8	27.8	-	27.8	44.6
11. Initial Requirement[1]	28.4	9.0	11.5	1.0	2.4	2.1	-	54.4	54.6	.5	55.1	109.5
12. Total Procurement Requirement	116.9	57.0	63.3	9.6	2.6	6.4	1.0	256.8	449.7	1.4	451.1	707.9
13. Procurement Expends[2]	23.4	11.4	12.6	2.0	.6	1.2	.2	51.4	89.9	.2	90.1	141.5
14. Total Expends (line 7 + 13)	42.3	38.4	28.6	14.5	1.9	2.7	.2	138.3	559.1	.3	559.4	697.7
15. Collections												
a. Navy (From TAB 3, Attach. A)	126.1	83.7	76.3	30.7	8.4	8.5	3.4	337.1	812.6	1.9	814.5	1151.6
b. RIK	6.4	4.3	3.0	3.1	-	-	-	16.8	27.8	-	27.8	44.6
c. Total	132.5	88.0	79.3	33.8	8.4	8.5	3.4	353.9	840.4	1.9	842.3	1196.2
16. Cash Accrual (line 15c - 14)								215.6			282.9	498.5

[1]No unfunded requirement exists in FY 80 DLR Initial.

[2]Although average PLT is nearly a year, many items have PLTs of less than a year. It was estimated that 20% of procurement obligations would experience expenditure in the fiscal year of obligation.

FY 1980 MARINE CORPS DLR FUNDING AVAILABLE FOR REALIGNMENT

MARINE CORPS STOCK FUND CASH ACCRUAL

		$ in Thousands
A.	**Appropriation**	
	1. PMC (Replenishment and Initial)	12,500
	2. O&MMC (Repair)	10,300
	3. Total	22,800
B.	**Stock Fund Cash Accrual**	
	1. Repair Funding	10,300
	2. Unfunded	16,700
	3. Repair Requirement	27,000
	4. Turnaround Time (Days)	305*
	5. Divided by 360 Days	84.7%
	6. End of Year in Process (line 3x5)	22,869
	7. Expends for Repair (line 3-6)	4,131
	8. Procurement Funding	12,500
	9. Procurement Unfunded	9,800
	10. Total Procurement Funding Requirement	22,300
	11. Production Leadtime (Days)	270
	12. Divided by 360 days	75.0%
	13. End of Year on Order (line 10x12)	16,725
	14. Procurement Expenditures (line 10-13)	5,575
	15. Total Expends (lines 7+14)	9,706
	16. Collections (TAB 6, line A2 D4)	31,992
	17. Gross Cash Accrual (line 16-15)	22,286
	18. Increased Stock Fund Cash Requirement	
	a. Total Obligations (line 3+10)	49,300
	b. x 4.2% (15 days divided by 360 days) =	2,066
	19. Net Stock Fund Cash Accrual (line 17-18)	20,220

NOTE: Although first year cash accrual would occur, the second year would experience a cash drawdown. This would occur because of the significant unfunded

TAB 9

requirements (pipeline deficiencies) that would be satisfied after transfer. In short, the total cash accrual would be less than the first year accrual because the pipeline assets capitalized (the sale of which produces cash accrual) are offset by the sizeable deficiencies that must be satisfied by stock fund resources subsequent to transfer.

* As per NAVCOMPTINST 7102.10 (Budget Submission Manual, Exhibit P-18b, Para 4) Repair Cycle was used for turnaround time (days). According to this definition Marine Corps Turnaround Time includes accumulated time of 185 days and Repair Lead Time of 120 days. Accumulation Time is the time interval required to generate through returns, (including transportation) sufficient stock of an item to warrant an economical work order. Repair Lead Time is that time interval between approval of the work order for repair until the item is classified as serviceable.

TAB 9

SUMMARY OF NET FUNDING REALIGNMENT

($ Millions)

	NAVY	MARCORP	TOTAL
A. Total Resources Available			
1. DLR Funding			
a. Procurement of DLRs	630.1	12.5	642.6
b. Repair of DLRs	551.6	10.3	561.9
c. Total	1181.7	22.8	1204.5
2. Stock Fund Cash Accrual			
a. Gross Accrual	498.5	22.3	520.8
b. Less: Increased Cash Requirement	58.5	2.1	60.6
c. Net Cash Accrual	440.0	20.2	460.2
3. Total Resources	1621.7	43.0	1664.7
B. Customer Funding Requirements			
1. Current Year Requirement	1151.6	32.0	1183.6
2. Backorder Requirement	151.3	5.3	156.6
3. Total Requirement	1302.9	37.3	1340.2
C. Net Residual Funding (line A3-B3)	318.8	5.7	324.5

TAB 10

INVENTORY CONTROL POINT REQUIREMENTS DETERMINATION PROCESS FOR DEPOT LEVEL REPARABLES

I. PURPOSE

To discuss the method of computing the Depot Level Reparable (DLR) procurement and repair requirements by the Inventory Control Points (ICPs) and determine if any changes are required under the stock funding alternative.

II. DISCUSSION

The procurement and repair inventory requirements for DLRs are determined using four Navy and two Marine Corps Uniform Inventory Control Point (UICP) Automated Data Processing (ADP) Programs:

-- Navy Levels Program

-- Marine Corps Forecasting Program

-- Navy Computation and Research Evaluation System (CARES)

-- Navy Supply Demand Review Program (SDR)

-- Stratification Program (Navy and Marine Corps)

Based upon historical usage data plus known future programs, the Navy Levels Program and the Marine Corps Forecasting Program forecast several key requirements determination elements such as demand, procurement leadtime, requisition frequency, and turn around time. Using this data, these programs then compute the ICP requirements levels such as

APPENDIX M

reorder point, order quantity, repair level, and safety level. The Navy CARES program combines the information developed through the Levels Program with certain other variable factors, such as risk, shortage costs, holding costs, and probability distribution functions, to determine actual execution levels necessary to achieve the highest System Material Availability (SMA) within the approved funding. Finally, the Navy SDR and the Navy/Marine Corps Stratification Programs compare assets with the requirements as calculated by the above programs to determine actual procurement requirements at any point in time.

For budget development the stratification programs determine requirements through the budget period (usually 2 years) for all items within each cognizance (COG) symbol of material. During execution of the budgeted programs, the SDR program determines requirements through the procurement lead-time for each individual item.

The determination of requirements for stock fund items is identical to the procedures described above, therefore, the determination of inventory requirements will not change as a result of chaning the funding method from procurement appropriations to the stock fund. Any changes in customer behavior (demand) may modify the value of the inventory levels but the process of computing these levels will not change.

Under the current system, the spares requirements, as determined by the above process, are subjected to a thorough review by the Hardware Systems Commands, NAVMAT, OPNAV resource sponsors, and the Navy Comptroller. Since DLR procurement and repair, however, are currently funded in procurement and O&M appropriations, this review is conducted in a broader context of requirements determination; in that, spares requirements are balanced against all other funding requirements. Although under the stock funding alternative spares requirements would still be reviewed by these activities, in the broader context of balancing all funding requirements and the associated direct control of funds during budget execution, the management and review process would be changed.

III. CONCLUSION

The ICP requirements determination process will not change under the stock fund alternative, but the current funds control process will be modified for all levels of management.

IMPACT ON MAINTENANCE ACTIVITIES

I. PURPOSE

To describe the impact on organizational (O), intermediate (I), and depot (D) level (industrial) maintenance activities if Depot Level Reparables (DLRs) are funded under either the single appropriation or the stock fund alternatives.

II. BACKGROUND

Under existing procedures, DLRs are procured with various procurement appropriations, reworked with Headquarters managed O&M funds, and provided by the supply system without charge to all maintenance levels. By definition, DLRs can only be condemned at depot level and cannot be fully reworked at the O and I levels. Reparables which do not meet this criteria are currently funded in the stock fund.

III. SINGLE APPROPRIATION

Under the single appropriation alternative, all maintenance activities would continue to receive DLRs without charge to operating funds. Therefore, there is no direct impact under this alternative if existing financial and management procedures continue in effect.

APPENDIX N

IV. STOCK FUND ALTERNATIVE

A. Fleet O & I Maintenance Levels & Material Readiness

1. Maintenance Resources

a. Manpower

Under the stock fund alternative, the submission of a DLR requisition will result in a financial charge to the maintenance activity or its supporting command and an increase in workload to manage and control the added financial responsibilities. This added workload would require additional manpower resources which, if not satisfied, would add to the existing problem of Fleet undermanning in terms of both quality and quantity of available manpower. Estimates of the additional manpower required are provided in Chapter 5.

b. Maintenance Skill Levels

The Fleet also has a shortage of maintenance skills resulting from inadequately trained technicians, test equipment deficiencies and an ever increasing complexity of weapon systems. This situation leads to incorrect fault diagnosis and isolation and sometimes unnecessary component replacement. A NAVSEA review of electronic components indicates that as much as one third of all DLRs returned to depots for repair are received in an RFI condition. This situation also exists at the intermediate level and to a lesser degree at the depot level in the aviation community. It is unlikely that the increased financial awareness, inherent in stock funding

DLRs, would reduce any of these unnecessary demands on the system which relate to inadequate maintenance skill levels or test equipment deficiencies.

c. Operating Costs

Operating costs would reflect not only the direct cost increases resulting from the transfer of DLRs, but would also reflect the skills, manpower and equipment deficiencies which are generally beyond the control of Fleet commanders.

2. Data Processing

The dependency for financial management reporting on shared supply/maintenance UADPS facilities will be increased. The AN/UYK-5 (U-1500) on carriers and submarine tenders currently runs on a 24 hour basis without any margin for casualities and cannot adequately support today's needs. LHA class ships are not as heavily loaded, but their computers have an additional command and control time sharing feature which has precedence over supply and maintenance requirements. Additional ADP impacts are discussed in Appendix O.

3. Maintenance Quality

Maintenance plans are currently developed for each individual DLR which prescribe the degree of repair that will be performed at each level of maintenance. Emphasis on financial economy at the user level may encourage circumvention of the prescribed maintenance plans and result in

efforts to perform unauthorized repairs and an increase in cannibalization. Economic pressures may take precedence over sound engineering judgments in replacing DLRs which have prescribed operating time limitations. This may particularly apply to components which relate to full system capability and are not related to safety. Any increase in these unauthorized efforts would degrade the overall effort to improve material readiness.

B. <u>Depot (D) Level Maintenance Activities</u>

The assessment of the funding and manpower impact on the industrial activities with the transfer of DLRs to the stock fund will be considered separately for NAVAIR and NAVSEA Industrial Activities. NAVELEX has no activities which are industrially funded.

1. NAVAIR Industrial Activities

a. Work in Process

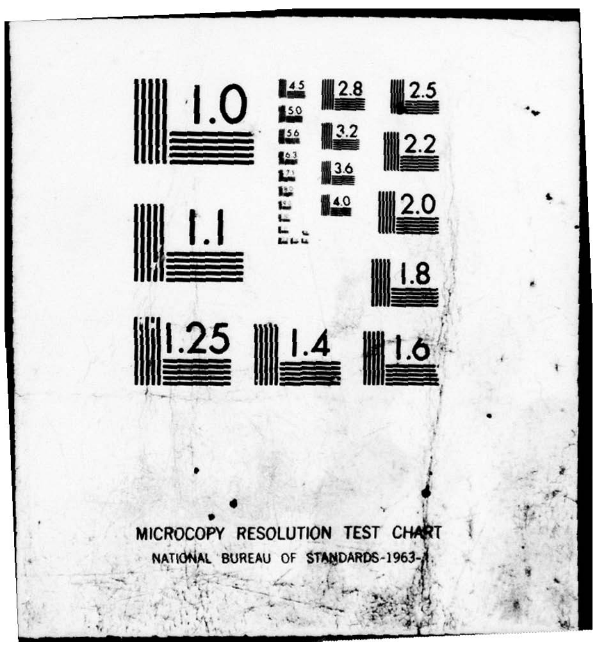
Based on actual statistical charges collected for four quarters (third and fourth quarter FY 77, first and second quarter FY-78), factored to obtain rework costs, an increment for full replacement value, and surcharges, the corpus level would increase an average of $5.3 million, based on a two week billing cycle. Some fluctuation in the corpus requirement can be expected from year to year due to the changing nature of the many rework programs being supported and the DLR influence on these programs.

AD-A073 185 OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON DC F/G 5/1
DEPOT LEVEL REPARABLES: AN ANALYSIS OF CURRENT AND ALTERNATIVE --ETC(U)
AUG 79 R J MOLONEY

UNCLASSIFIED NL

4 OF 4
AD
A073185

END
DATE
FILMED
9-79
DDC


1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

The estimated annual pass-through cost to NARF customers is estimated at $137.2 million, as follows:

Program	Annual Value at Standard Price*	
Aircraft Rework	$198.2M	
Engine Rework	84.8	
Component Rework	62.0	
Other Support	32.3	
Missile Rework	5.8	
TOTAL		$383.1M

*Calculated at current catalog value plus surcharges based on average statistical charges collected for the period from April 1977 to March 1978.

Net Price Computation

	%	
(1) Cost to repair with a 98% survival rate	28.25	
(2) Standard price increment with a 2% depot washout rate	1.44	
(3) 6% OSD surcharge at 2% washout rate	.12	
(4) Navy surcharge	6.00	
(5) Net price factor		35.81
Estimated annual pass-through cost		$137.2M
Divided by the billing cycles per year		26
Estimated increase in corpus level per billing cycle		$ 5.3M

APPENDIX N

b. Depot Manpower Requirements

The requirement for additional personnel varies per facility in accordance with the number and complexity of the rework programs supported and the physical layout of the plant. The estimated additional personnel required in terms of transactional workload are discussed in Chapter 5.

c. Implementation Costs

A one time non-recurring cost for computer program changes, internal command instruction changes and personnel procedural retraining will be approximately $200,000.

2. NAVSEA Industrial Activities

It is not anticipated that procedural changes will be needed to accommodate the stock funding alternative. The level of the NIF corpus would increase based on the material portion of the stabilized manday rate and the repair and alteration work authorized.

Based on a limited sample of activities and work packages, manday rates are estimated to increase as follows: submarine - $2.90, nuclear carrier - $8.86, and surface ship - $2.25. These rate increases will require advance funding limitation increases of approximately 20% for repair and 30% for alteration work. The NIF corpus level would increase an average of $1.3 million based on a monthly billing cycle.

The estimated annual pass-through cost to shipyard customers, based on FY-79 data, is estimated at $15.4 million, as follows:

Annual Value at Standard Price	$35.0M
Net Price Computation	%
(1) Cost to repair with a 92% survival rate	28.99
(2) Standard price increment with an 8% depot washout rate	5.40
(3) 6% OSD surcharge at 8% washout rate	.47
(4) Navy surcharge	9.00
(5) Net price factor	43.86
Estimated annual pass-through cost	$15.4M
Divided by the billing cycles per year	12
Estimated increase in corpus level per billing cycle	$ 1.3M

V. MARINE CORPS O & I LEVEL MAINTENANCE ACTIVITIES

Marine aircraft groups and squadrons, whose aircraft related DLRs are funded by Navy appropriations, would experience the same impacts discussed under "O & I Level Activities" above.

FMF units, for other than aircraft components, are currently supported by "Maintenance Float" activities located within the Combat Service Support organizations. The "Floats"

maintain an authorized allowance level of DLRs in inventory. These allowances are mechanically computed, considering such elements as customer demand, "field level" repair cycle time, and "washout" rate predictions.

If DLRs are transferred, it is not presently envisioned that O&MMC financing would extend below the "Float" level. Therefore, stock funding would not have an impact on supported operating units.

A financial workload increase would be experienced by the Float activities, including Force/Brigade Service Support Groups, and the supporting consolidated Fiscal Accounting Office. Budget development, fiscal accounting, and inventory control would deal with reimbursable transactions on an increased scale. ADP changes within the Supported Activities Supply System (SASSY) FMF system will be needed to ensure interface between the Floats' inventory control system and MAGFARs (Marine Air/Ground Financial Accounting and Reporting System).

The Marine Corps industrial activities would experience a negligible impact with some increase in corpus.

VI. CONCLUSION

The single appropriation alternative would not have a direct workload impact on maintenance activities. However, the stock fund alternative would have a direct impact on maintenance activities in terms of both the quality and quantity of additional manpower required as a result of the added financial workload.

IMPACT ON COMPUTER SYSTEMS/PROGRAMS

I. PURPOSE

To discuss the impact on existing data processing systems of funding Depot Level Reparables (DLRs) in the Navy and Marine Corps stock funds.

II. BACKGROUND

The discussion of the impact on existing data processing systems is based on the following conditions:

-- Stock funded DLRs would be assigned distinctive COG/SAC symbols.

-- Customers would be charged a net price (i.e., standard price less credit allowed) at the time of requisitioning if the advice code indicates the intent to turn in an NRFI carcass.

-- Within the Military Standard Logistics Systems (MILS), all procedures affected by the stock funding of DLRs would be coordinated with the MILSTRIP, MILSTRAP and MILSBILLS Administrators. The two price system must also be accommodated within the Federal Catalog System and implemented in related systems and products of the Defense Logistics Services Center.

-- The ship installed ADP systems (AN/UYK-5 (U-1500)) are antiquated and overloaded, particularly in aircraft carriers and submarine tenders.

APPENDIX O

III. DISCUSSION

The following procedures and data processing systems would be affected by the transfer of DLRs to the stock funds.

A. Impact on Navy Systems

1. Uniform Automated Data Processing System - Stock Points (UADPS-SP)

The change in COG symbols from APA to NSA would not require programming changes since procedures are already in effect to migrate items from one stores account to another (i.e., APA to NSA).

In the UADPS-SP financial applications, the proposed two price policy and the addition of 3 new FIR codes, to accumulate financial data on the NRFI pipeline and on losses due to non-receipt of NRFI carcasses, would have an estimated programming impact at FMSO of 12 to 15 man months. The net price can be accommodated within the present format of the 250 character financial tape. The advice codes noted on the Transaction Item Report (TIR) are now passed to financial processing and provision can be made to edit for those which pertain to carcass return.

The impact of financial processing at the stock point level would be lessened by the implementation of Centralized Accounting and Billing (CAB) at all stock points which TIR to an Inventory Control Point (ICP). Under CAB procedures, all functions for accounting and billing for

wholesale material (ICP-managed) is performed by the ICP based on data submitted in the TIR. Since TIRs do not include pricing information, the transaction is processed at the price recorded on the ICP's Master Data File (MDF). For DLRs, the advice code will determine which MDF price is applicable. CAB is presently in operation at 10 TIR activities and between November, 1978 and March, 1981 the system will be implemented at 49 additional stock points.

Under the present Supply Management Programs, the stock point Master Stock Item Record (MSIR) cannot currently accommodate two prices. Since the net price will be established separately for each item, it would be necessary to redesign the MSIR to incorporate a second price field. The capability to edit on advice codes is presently available. The two price credit policy would require 12 manyears of effort for file conversion and to modify change notice processing. The American Management Systems study, conducted under a contract with the Naval Sea Systems Command, estimated 5.25 manyears of programming effort. This study, however, assumed continuance of the existing credit systems as well as the implementation of CAB.

2. Shipboard Uniform Automated Data Processing System (SUADPS)

Existing ADP systems in aircraft carriers and submarine tenders operate on a 24 hour per day basis with

out margin for casualties. Processing times are unsatisfactory, and the equipment is old, unreliable, and saturated. Many mandated programs and changes cannot be implemented because of equipment obsolescence. A Shipboard Non-Tactical ADP Program (SNAP) project is underway to improve the ADP support provided to Fleet operating units. This project will update both hardware and software. It is not considered feasible to incorporate the two price policy before the installation of SNAP hardware because of the core limitations of the current hardware and the extensive reprogramming effort required on existing hardware, estimated to be 18 man years. It is feasible to accomplish this change during the conversion of SUADPS from the AN/UYK-5 hardware to the SNAP hardware with a projected resource requirement of two manyears if specifications are provided by 1 July 1979 and redesign of SUADPS software for SNAP is approved. If this redesign is not approved, or the specifications are delayed beyond 1 July 1979, the resource requirement will be 18 manyears. The earliest logical date for implementation should be the date of the last major SNAP hardware installation afloat, currently estimated to be FY 1982.

Problems in incorporating the two price policy in SUADPS would not necessarily create a corresponding delay in implementing the transfer of DLRs to the stock fund. Since the vast majority of reparable transactions generated by

operating units (end use customers) include carcass turn-ins, the only price necessary for most situations would be the net price. There would be no appreciable need to have the standard price recorded in the ship's computer. Class 207 (computerized) ships operating under SUADPS replenish their load from stock points as a transfer between supply officers. Even though the ship's mechanized requisition cites the net price where no turn-in is involved, the stock point would issue at the standard price. This would create a 100% "financial difference" workload for transactions of this nature at the automated customer level. While from a practical standpoint, implementation could be accomplished now, consideration should be given to delaying the change in DLR funding until the SNAP conversion has been completed.

3. Uniform Automated Data Processing Systems For Inventory Control Points (UICP)

The data bases for the Transaction Item Reporting Program (B05) and the Material Returns Program (B15) currently include a price for the calculated cost to repair (DEN B055A), and, therefore, have the capability to compute the net price for each DLR. Programming required to develop the capability to edit by advice codes, plus file conversion and modifications to change notice processing will require six manyears of effort.

The goals of the UICP carcass tracking system (B05) are in consonance with the proposed credit policy. Currently, ASO uses B05 to track 800 non-CLAMP items. In addition, ASO tracks 11,000 CLAMP items via the unique CLAMP system. SPCC utilizes B05 to track 2,600 items, of which 2,200 are managed under the FIRM program. The requirements of the B05 system are now being reinforced to require 100% tracking of DLRs. Included in the six manyear estimate for UICP is an interface between the B05 program and the UADPS-SP financial programs which would be required to provide for the additional billing upon determination that a "promised" carcass would not be forthcoming.

4. Level II/III System

The same programming changes required in UADPS-SP will be required in the Level II/III System. It is planned, however, that all CONUS Level II/III activities will be converted to UADPS-SP by FY 1982. Programming effort for ex-CONUS activities, which are not scheduled for UADPS-SP will require 12 manyears of programming effort.

5. Naval Ordnance Management Information System (NOMIS)

NOMIS is a NAVSEA sponsored system used by conventional ammunition activities. The NOMIS Supply Subsystem processes transactions at these activities for ICP managed material (exclusive of conventional ammunition).

There would be a programming impact to incorporate the new COG assignments. The inclusion of the new FIR codes would require only minimal changes. There would be substantial programming required to incorporate the two price policy and to modify all support documentation. It is estimated that four manyears of programming effort will be required to effect these changes to NOMIS. NOMIS does have the capability to track carcass returns, but it would be necessary to interface this capability with the CAB financial operation at SPCC and ASO. The major ammunition stock points are already operating under CAB.

6. Other Navy Activities

In developing this appendix, the major processing systems have been analyzed to determine computer impact. Only those indicating sizeable programming requirements are discussed. There are a number of activities operating under other processing systems (e.g., NARFs, Shipyards, etc.) for which no estimates were obtained. In addition, other small activities operate under manual procedures.

B. Impact on Marine Corps Systems

1. Marine Corps Unified Material Management System (MUMMS)

The requirement for two prices would increase item record lengths and/or require redefinition of record formats with corresponding logic changes in each

pertinent program which accesses those records. A new discrete Stores Account Code (SAC-4) with appropriate program logic would have to be created to segregate the processing of transactions for stock funded DLRs. A major SAC migration would then be required and could be accommodated within existing procedures. The accuracy of current recoverability code assignments may have to be validated prior to selecting the "D" recoverability coded items for migration. Accordingly, it is possible that the existing SAC migration process would require minor modification. New logic would have to be added for the processing of DLR demands to tie into billing programs and create the accounting adjustment for the credit factor. Logic for follow-up on a due-in carcass already exists, but new programming would be required to connect this process to the billing system for supplemental billing in the event that the asset due-in does not materialize. Impacts on allowance control of DLRs must be reviewed by HQMC and cannot be determined at this time. There may be a requirement to change repair table computations to accommodate stock level stratification changes based on SAC. As influenced by competing priorities, it is estimated that Marine Corps data system revisions could be implemented within a 12 month period with seven manyears of effort.

2. Retail/User Level Systems

Virtually the same impacts would occur in these systems as discussed under MUMMS. Supporting financial systems must be able to assign the correct price based on the requisition advice code; process supplemental billing; and accommodate credits for DLRs returned to store as excess to needs.

IV. CONCLUSION

The significant impact on Navy shipboard ADP systems could delay implementation of the stock funding alternative until FY 1982, when the planned installation of upgraded equipment should be completed. Furthermore, the implementation of the proposed two price credit policy will require extensive programming effort for all applicable Navy and Marine Corps ADP systems, estimated to be 44 to 60.25 manyears. The difference between the two estimates is the additional programming effort required to modify the AN/UYK-5 system instead of incorporating the changes in the new SNAP system. Using an estimated cost of $22,500 (GS-11, Step 6) per manyear of effort, this equates to a one time conversion cost of $990,000 to $1,355,625. This estimate does not include activities with other processing systems. A detailed breakdown of these costs is included in Chapter 5.

The required programming effort should be initiated at least 18 months prior to implementation date in order to plan,

design and program changes necessary to effect this action. Several changes will involve 15 to 20 people over the full 18 months, while others will involve two to three people for six months, etc. Traditionally, a minimum of 18 months of concentrated effort has been required to accomplish a project of this magnitude.

POLICY AND DIRECTIVES CHANGES

I. PURPOSE

To discuss changes in policy and directives that will be required if Depot Level Reparables (DLRs) are transferred to the stock funds.

II. BACKGROUND

At this time, Navy and Marine Corps Inventory Control Point managed secondary items are funded under both the revolving fund (Stock Funds) and the procurement accounts. If DLRs, now funded by the PMC, OPN, WPN and APN appropriations are placed in the stock funds, various existing policies, directives and regulations will require revision.

III. DISCUSSION

A. The following Department of Defense directives will require revision:

1. Department of Defense Instruction 7040.5 - "Definitions of Expense and Investment Costs."

The criteria and definitions contained in this Instruction govern the types of appropriations under which are financed all material procured by DoD. The transfer of DLR financing from procurement appropriations to the Service stock funds would require that the definitions of expense and investment as contained in this Instruction be revised.

APPENDIX P

2. Department of Defense Directive 7420.1 - "Regulations Governing Stock Fund Operations."

Although this Directive would not necessarily have to be changed to accommodate the financing of DLRs in a stock fund, the proposal being described in Chapter 4 contains one unique concept that is not in accordance with the current edition of this Directive--the Net Price concept. This concept is counter to the following provisions of DODD 7420.1:

- Paragraph VIII A 1.

  "each item financed under a stock fund shall have a single standard price which shall be used for . . . effecting reimbursements for sale . . ."

- Paragraph XI B.

  "credits shall be granted when the returned material is required . . . through the end of the budget year . . ." and ". . . material not applicable to such requirements and within the stock fund manager's retention limit will be accepted without credit . . ."

Acceptance of the basic reasons for the Net Price concept (See Appendix J) should provide adequate justification for revision to the above sections of the Directive.

3. Department of Defense Instruction 7110-1-M (Budget Guidance Manual).

This Instruction would require revisions to reflect the changes in budget documentation required for budgeting for the procurement and repair of DLRs in the stock funds vice procurement appropriations.

B. In addition to the basic DoD Directives above, numerous implementing Service directives (e.g., NAVCOMPT Manual paragraphs, Navy and Marine Corps Stock Fund Charters, OPNAV, CMC, FLEET, NAVMAT instructions and directives) will require revision, as applicable, to reflect the change in funding the procurement and repair of DLRs in the stock funds.

IV. CONCLUSION

It is recognized that a change in the method of funding DLRs will require revision to numerous Departmental, Headquarters and Field activity policies and directives. It is believed that the necessary changes can be coordinated and accomplished during the transition period.

STATISTICS SUPPORTING MANPOWER ANALYSIS

I. PURPOSE

To display workload and manpower estimates provided by selected activities and to provide the DLR requisition transaction detail used to estimate the manpower required for each major activity.

II. BACKGROUND

The manpower estimates provided by selected activities and presented in this appendix was gathered during study group field trips. It was sought out and developed in order to establish a basis for the examination of estimated manpower requirements.

The requisition data for transactional analysis was provided by the ICPs. However, development of the specific COG data for DLRs required the cooperative efforts of ASO, SPCC and the Fleet Material Support Office (FMSO) in developing the computer programs to extract the data from requisition demand history files.

III. DISCUSSION

TABS 1 and 2 present the workload estimates of a Non-FBM Sub-Tender and a master jet Naval Air Station. Their estimates are displayed because they represent the extremes of the workload perceived by the "added new tasks" that stock funding DLRs would create.

TAB 3 was extracted from the FMSO computer output and reflects two years of historical data. The aviation demand data was compared with two years of 3-M data to ensure maximum consideration of transactional workload. The higher number of either requisition transactions or 3-M BCM actions was used to arrive at the final recommended manyear figure. Both the ICP requisition files and the 3-M data are comprehensive and reflect the transactions as reported by users.

It should be noted that billet assignments could be for civilians at shore activities and military for operating forces and overseas. This would assist in balancing the AK rate rotation, since this group has more billets ashore than at sea.

EXAMPLE OF UIC WORKLOAD ESTIMATES
FOR A
SUBMARINE TENDER (NON-FBM)

Additive Workload Estimates for Stock Funded DLRs

Functions	Manhours (M/H) per Requisition
1. Tracking requisitions through system	3.0
2. Processing carcass turn-ins (special packaging, marking, follow-up)	1.5
3. Material lost, damaged, or short in shipment (including surveys)	2.0
4. Additional OPTAR funds administration	1.0
5. Manual research on requisitions (price, requisition codes, etc.)	.5
6. Financial verification of data input (acceptance, correct application, backing out wrong price or erroneous charges)	1.5
7. Segregated stowage	.5
8. Transaction item reporting	.5
9. Receipt inspection/rejection	.5
10. Additional effort for onboard issues	1.0
Total M/H Required per Requisition	12.0

1500 DLR requisitions are processed annually. The 1500 requistions x 12 M/H divided by 1660* = 10.8 manyears required.

*Productive manhour conversion factor to one military manyear.

NOTE:

Many of the above estimated additive tasks are either required to be performed under the current system or are self-imposed; i.e., would not be required solely as a result of stock funding DLRs.

TAB 1 TO APPENDIX Q

EXAMPLE OF UIC WORKLOAD ESTIMATES
FOR A
MASTER-JET BASE

Additive Workload Estimates for Stock Funded DLRS

Annual DLR transactions	72,000
BCM rate (%)	x .28
Net transactions referred to depot	20,160
Workload estimate (.555 MH per transaction -- See below)	x .555
Total MH required	11,188.8

divided by 1697* = 6.59 M/Y required.

*Combination of Military and Civilian manhour conversion factors to one manyear.

Estimated Tasks and M/H for Stock
Funding DLRs per Transaction

(Column number relates to TAB 1 sub-tender functions)		MH
3	Material lost/short/damaged	.05
4	Additional funds administration	.005
5	Requisition screening for price selection based on advice code	.05
6	Financial error correction	.05
8	Transaction Item Reporting	.2
10	Catch-all	.2
	Total MH required per requisition	.555

TAB 2 TO APPENDIX Q

REQUISITION DEMAND AND 3-M BCM DATA ANALYSIS OF MANPOWER REQUIREMENTS BY ACTIVITY

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	NAVMAT FIELD ACTIVITIES	4,468	.672	1			TOTAL 1*
60530	NAV WEP CTR, CHINA LAKE	1,476	.222	0			0
62269	NADC WARMINSTER	1,396	.210	0			0
66604	NAV U/W SYS CTR, NEWPORT	1,596	.240	0			0
	NAVAIR FIELD ACTIVITIES	83,360	12.555	13	32,593	4.909	TOTAL 19*
	UNALLOCATED			2			1
00163	NAV AVIONICS CTR, IN.	1,752	.264	0			0
00421	NATC PATUXENT RIVER	22,253	3.351	3	17,465	2.630	3
63126	PAC MISSILE TEST CTR, PT. MUGU	6,595	.993	1	15,128	2.278	2
63205	NAV PLT REP, VOUGHT, DALLAS	2,627	.396	0			0
65885	NARF ALAMEDA	8,803	1.326	1			2**
65886	NARF JACKSONVILLE	7,954	1.198	1			2**
65887	NARF NORFOLK	7,525	1.133	1			2**
65888	NARF NORTH ISLAND	12,004	1.808	2			3**
65889	NARF PENSACOLA	7,044	1.061	1			2**
65923	NARF CHERRY POINT	6,803	1.025	1			2**

*Due to manyear rounding, one manyear is included for distribution by NAVMAT and NAVAIR.

**One additional manyear recommended (Industrial Activity, Functional Analysis)

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	ALLOCATED	AUG 76-JUL 78 BCM 3-M	MANYEARS 3-M	RECOMMENDED
	NAVELEX	5,462	.822	1			TOTAL 1*
65236	NESEC CHARLESTON	2,088	.314	0			0
65584	NESEC SAN DIEGO	2,140	.322	0			0
65580	NESEC PORTSMOUTH	1,234	.186	0			0
	NAVSEA	22,814	3.436	3			TOTAL 3*
	UNALLOCATED			1			1
00151	NSY PHILADELPHIA	3,478	.523	1			1
00181	NSY NORFOLK	2,794	.421	0			0
00191	NSY CHARLESTON	4,907	.739	1			1
00221	NSY MARE ISLAND	1,785	.269	0			0
00251	NSY PUGET SOUND	1,665	.251	0			0
00253	NTS KEYPORT	1,878	.283	0			0
00311	NSY PEARL HARBOR	3,258	.491	0			0
62793	SUPSHIP NEWPORT NEWS	1,596	.240	0			0
62795	SUPSHIP PASCAGOULA	1,453	.219	0			0

*Due to manyear rounding, one manyear is included for distribution by NAVSEA and NAVALEX.

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
					BCM	MANYEARS	
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	3-M	3-M	RECOMMENDED
	NAVSUP						
00612	NSC CHARLESTON	1,514	.228	0			TOTAL 0
	CINCUSNAVEUR	10,088	1.519	2	27,543	4.148	TOTAL 4*
62856	NAF LAJES, AZORES	1,407	.212	0	3,796	.572	0
62863	NS ROTA, SPAIN	4,191	.631	1	11,912	1.794	2
62995	NAF SIGONELLA, ITALY	4,490	.676	1	11,835	1.782	2
	CINCPACFLT						TOTAL 55
	LOG PAC ACTIVITY			1			TOTAL 1
00651	NSD SUBIC BAY, PI	4,686	.706	1			1
	SUBPAC	16,647	2.507	3			TOTAL 3
04621	USS SPERRY (AS-12)	1,599	.241	0			0
	SS UNITS SUPPORTED	2,766	.417	0			0
	TOTAL FOR AS-12		.658	1			1

*3-M data applies.

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
					BCM	MANYEARS	
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	3-M	3-M	RECOMMENDED
	CINCPACFLT (CONT.)						
	SUBPAC (CONT.)						
04629	USS PROTEUS (AS-19)	3,018	.454	0			0
	SS UNITS SUPPORTED	1,227	.185	0			0
	TOTAL FOR AS-19		.639	1			1
04689	USS HUNLEY (AS-31)	5,703	.859	0			0
	SS UNITS SUPPORTED	1,370	.206	0			0
	TOTAL FOR AS-31		1.065	1			1
55522	SUB DEV GRU-1, SAN DIEGO	964	.145	0			0
	SURFPAC	77,608	11.688	12			TOTAL 12
03636	USS CHICAGO (CG-11)	1,688	.254	0			0
07198	USS TRIPOLI (LPH-10)	1,987	.299	0	946	.142	0
07202	USS NEW ORLEANS (LPH-11)	1,977	.298	0	610	.092	0
07351	USS OKINAWA (LPH-3)	1,822	.274	0			0

NOTE: Since no single SURFPAC unit had sufficient transactions equating to a full manyear, data is presented in aggregate. The data displayed above constitutes the four high units. The 12 manyears recommended is for distribution by SURFPAC.

UIC	CLAIMANT	OCT 76 SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	ALLOCATED	AUG 76-JUL 78 BCM 3-M	MANYEARS 3-M	RECOMMENDED
	AIRPAC	256,673	38.657	39	243,700	36.701	TOTAL 39*
	UNALLOCATED			2			0
00236	NAS ALAMEDA	3,265	.492	0	8,627	1.299	1
00246	NAS NORTH ISLAND	27,683	4.169	4	31,255	4.707	5
00296	NAS MOFFETT	12,037	1.813	2	19,728	2.971	3
00334	NAS BARBERS POINT	5,286	.796	1	12,699	1.913	2
00620	NAS WHIDBEY ISLAND	20,558	3.096	3	21,945	3.305	3
03341	USS MIDWAY (CV-41)	17,681	2.663	3	8,708	1.311	1
03343	USS CORAL SEA (CV-43)	5,369	.809	1	6,110	.920	1
03361	USS RANGER (CV-61)	2,145	.323	0	948	.142	0
03363	USS KITTY HAWK (CV-63)	12,022	1.811	2	6,714	1.011	1
03364	USS CONSTELLATION (CV-64)	9,264	1.395	1	8,641	1.301	1
03365	USS ENTERPRISE (CVN65)	11,391	1.716	2	13,478	2.030	2
09363	VP-17 (HAWAII)	5,003	.753	1			1
09517	COM PAT NGS PAC	1,262	.190	0			0

*The higher numb of total requisition transactions or 3-M data was applied.

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
					BCM	MANYEARS	
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	3-M	3-M	RECOMMENDED
	AIRPAC* (CONT.)						
09589	ANARTICDEV SQDN.	2,519	.379	0			0
09618	VP-1 (HAWAII)	2,358	.355	0			0
09623	VP-4 (HAWAII)	4,220	.636	1			1
09624	VP-6 (HAWAII)	2,518	.379	0			0
09649	VP-22 (HAWAII)	3,818	.575	1			1
09801	VC-1 (HAWAII)	1,925	.290	0			0
60259	NAS MIRAMAR	38,338	5.774	6	35,062	5.280	5
61577	NAS AGANA, GUAM	15,429	2.324	2	6,578	.991	1
62254	NAF KADENA, JAPAN	2,878	.433	0	6,967	1.049	1
62507	NAF ATSUGI, JAPAN	2,308	.348	0	1,977	.298	0
62876	NAS CUBI POINT, PI	10,915	1.644	2	17,513	2.638	3
63042	NAS LEMOORE	33,131	4.990	5	26,319	3.964	4
68212	NAF MISAWA, JAPAN	1,614	.243	0	5,118	.771	1
94296	JAPAN AIR MFG	1,736	.261	0			0
	OTHERS				5,313	.800	1

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
					BCM	MANYEARS	
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	3-M	3-M	RECOMMENDED
	CINCLANTFLT						TOTAL 52
	SUBLANT	47,185	7.104	7			TOTAL 7
04619	USS FULTON (AS-11)	1,875	.282				
	SS UNITS SUPPORTED	2,809	.423				
	TOTAL FOR AS-11		.705	1			1
04628	USS ORION (AS-18)	1,641	.247				
	SS UNITS SUPPORTED	4,682	.705				
	TOTAL FOR AS-18		.952	1			1
04696	USS HOLLAND (AS-32)	6,311	.950				
	SS UNITS SUPPORTED	3,560	.536				
	TOTAL FOR AS-32		1.486	1			1
04697	USS SIMON LAKE (AS-33)	3,383	.509				
	SS UNITS SUPPORTED	2,158	.325				
	TOTAL FOR AS-33		.834	1			1
04720	USS CANOPUS (AS-34)	6,552	.987				
	SS UNITS SUPPORTED	4,027	.606				
	TOTAL FOR AS-34		1.593	2			2

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
					BCM	MANYEARS	
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	3-M	3-M	RECOMMENDED
	CINCLANTFLT (CONT.)						
	SUBLANT (CONT.)						
05851	USS L.Y. SPEAR (AS-36)	1,724	.26[illegible]				
	SS UNITS SUPPORTED	4,508	.679				
	TOTAL FOR AS-36		.939	1			1
05098	USS D. WEBSTER*(SSBN 626)	2,053	.309	0			0
	OTHER	1,902	.286	0			0
	SURFLANT	69,200	10.421	10			TOTAL 10
03623	USS ALBANY (CG-10)	1,828	.275	0			0
07178	USS GUAM (LPH-9)	1,785	.269	0			0
07350	USS IWO JIMA (LPH-2)	1,717	.259	0			0
20009	USS INCHON (LPH-12)	1,508	.227	0			0
20116	USS SAN DIEGO (AFS-6)	1,778	.268	0			0
20632	USS SAIPAN (LHA-2)	1,322	.199	0			0

*Overhaul

NOTE: Since no single SURFLANT unit had sufficient transactions equating to a full manyear, data is presented in aggregate. The data displayed above constitutes the six high units. The 10 manyears recommended are for distribution by SURFLANT.

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	CINCLANTFLT (CONT.)						
	AIRLANT	152,446	22.959	23	230,160	34.663	TOTAL 35*
	UNALLOCATED			2			0
00188	NAS NORFOLK	4,028	.607	1	19,173	2.886	3
00207	NAS JACKSONVILLE	17,346	2.612	3	28,572	4.303	4
00213	NAS KEY WEST	4,111	.619	1	8,519	1.283	1
00389	NS ROOSEVELT ROADS	2,312	.348	0	3,489	.525	1
03342	USS FDR (CV-42)	2,931	.441	0	(DECOMMISSIONED)		0
03359	USS FORRESTAL (CV-59)	9,266	1.395	1	5,265	.793	1
03360	USS SARATOGA (CV-60)	9,731	1.466	1	6,151	.926	1
03362	USS INDEPENDENCE (CV-62)	8,350	1.258	1	8,490	1.279	1
03366	USS AMERICA (CV-66)	9,232	1.390	1	11,394	1.716	2
03367	USS J.F. KENNEDY (CV-67)	10,934	1.647	2	15,142	2.280	2
03368	USS NIMITZ (CVN-68)	12,231	1.842	2	14,616	2.201	2
03369	USS EISENHOWER (CVN-69)	7,536	1.135	1	3,558	.535	1
09206	HM-12	2,127	.320	0			0
09354	VAQ-33	2,117	.319	0			0

*The higher number of total requisition transactions or 3-M data was applied.

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	 ALLOCATED	AUG 76-JUL 78 BCM 3-M	 MANYEARS 3-M	RECOMMENDED
	CINCLANTFLT (CONT.)						
	AIRLANT (CONT.)						
60087	NAS BRUNSWICK	2,237	.337	0	13,308	2.004	2
60191	NAS OCEANA	24,917	3.753	4	40,676	6.126	6
60200	NAS CECIL	17,675	2.662	3	35,924	5.410	5
68335	NAS LAKEHURST	1,619	.244	0	1,336	.201	0
62481	NAS BERMUDA	1,408	.212	0	3,852	.580	1
00306	NAS GTMO	1,132	.170	0	1,393	.210	0
65212	NS KEFLAVIK	1,206	.182	0	4,156	.626	1
	OTHER				5,146	.775	1
	CNET	38,868	5.854	6	86,981	13.100	TOTAL 13*
	UNALLOCATED			5			0
00204	NAS PENSACOLA	6,231	.938	1	16,220	2.443	2
00216	NAS CORPUS CHRISTI	3,254	.489	0	8,531	1.285	1
0395A	VT-4 PENSACOLA	1,850	.279	0			0
0398A	VT-7 MERIDIAN	1,306	.197	0			0

*3-M data applies.

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	CNET (CONT.)						
0400A	VT-21 KINGSVILLE	1,225	.184	0			0
0401A	VT-22 KINGSVILLE	1,337	.201	0			0
0402A	VT-23 KINGSVILLE	2,388	.360	0			0
0405A	VT-26 CHASE FIELD	1,410	.212	0			0
0406A	VT-27 CORPUS CHRISTI	2,251	.339	0			0
0407A	VT-28 CORPUS CHRISTI	2,800	.422	0			0
0410A	.VT-31 CORPUS CHRISTI	1,189	.179	0			0
0614A	VT-10 PENSACOLA	2,113	.318	0			0
52813	TRAWINGS WHITING	1,495	.225	0			0
52902	VT-86 PENSACOLA	1,471	.222	0			0
60241	NAS KINGSVILLE	2,243	.338	0	14,357	2.162	2
60376	NAS CHASE FIELD	1,930	.291	0	13,907	2.094	2

*3-M data applies.

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	CNET						
60508	NAS WHITING	641	.097	0	17,489	2.634	3
63043	NAS MERIDIAN	1,886	.284	0	11,621	1.750	2
64619	GUIDED MISSILES SCH., DAM N.	1,515	.228	0			0
00639	NAS MEMPHIS	333	.100	0	4,198	.632	1
	OTHER				658	.099	0
	CNAVRES	27,702	4.172	4	32,732	4.930	TOTAL 5*
	UNALLOCATED			2			0
00101	NAS SOUTH WEYMOUTH	2,834	.427	0	2,800	.422	0
00158	NAS WILLOW GROVE	1,178	.177	0	4,456	.671	1
00166	NAF WASHINGTON	1,638	.247	0	4,330	.652	1
00196	NAS ATLANTA	2,451	.369	0	3,096	.466	0
00206	NAS NEW ORLEANS	3,502	.527	1	4,874	.734	1

*3-M data applies.

		OCT 76-SEP 78	MANYEARS (ANNUAL)		AUG 76-JUL 78		
UIC	CLAIMANT	# REQ	COMPUTED	ALLOCATED	BCM 3-M	MANYEARS 3-M	RECOMMENDED
	CNAVRES (CONT.)						
00215	NAS DALLAS	4,152	.625	1	6,118	.921	1
00274	NAF DETROIT	1,872	.282	0	2,158	.325	0
00275	NAS GLENVIEW	2,754	.415	0	4,328	.652	1
00621	NARU WHIDBEY ISLAND	2,169	.327	0			0
63098	NARU ANDREWS	1,947	.293	0			0
63099	NARU JACKSONVILLE	2,303	.347	0			0
	OTHER				572	.086	0
63139	NARU ALAMEDA	449	.067	0			0
63101	NARU MEMPHIS	161	.024	0			0
63102	NARU NORFOLK	112	.017	0			0
66065	NARU NORTH ISLAND	149	.022	0			0
66630	NARU PT. MUGU	31	.005	0			0
	USMC	155,851	23.472	23	132,540	19.961	TOTAL 31*
09111	MAG 11	11,829	1.781	2	10,985	1.654	2
09112	MAG 12	10,011	1.508	2	6,425	.968	2

*Includes 8 enlisted ground force (SGT/MOS 3451 (4)/MOS 3042 (4)) personnel, derived from USMC ground units functional analysis.

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	USMC (CONT.)						
09114	MAG 14	15,322	2.308	2	13,231	1.993	2
09115	MAG 15	8,870	1.336	1	7,402	1.115	1
09116	MAG 16	14,079	2.120	2	11,740	1.768	2
09124	MAG 24	10,547	1.588	2	5,164	.778	2
09131	MAG 31	13,755	2.072	2	14,811	2.231	2
09132	MAG 32	8,894	1.339	1	9,331	1.405	1
09136	MAG 36	13,146	1.980	2	11,974	1.803	2
09167	MAG 26	14,460	2.178	2	10,650	1.604	2
09387	VMGR 252	1,068	.161	0			0
52841	MAG 29	5,552	.836	1	5,340	.804	1
52934	MAG 16 DET PENDLETON	3,909	.589	1	3,878	.584	1
57082	MAG 13	15,962	2.404	2	8,872	1.336	2
62974	MCAS YUMA	5,140	.774	1	8,976	1.352	1
67244	MAR DET EL TORO	1,529	.230	0	136	.020	0
67251	MCAR ALAMEDA	1,778	.268	0			0
	OTHER			0	2,138	.322	0

UIC	CLAIMANT	OCT 76-SEP 78 # REQ	MANYEARS (ANNUAL) COMPUTED	MANYEARS (ANNUAL) ALLOCATED	AUG 76-JUL 78 BCM 3-M	AUG 76-JUL 78 MANYEARS 3-M	RECOMMENDED
	USMC (CONT.)						
	MCAS IWAKUNI			0	467	.070	0
	HMX-1			0	1,020	.154	0
M28000	HQ, 1st FSSG						1
M27000	HQ, 2nd FSSG						1
M29000	HQ, 3rd FSSG						1
MMR300	HQ, FIRST MARINE BRIGADE						1
MMFAG8	MFU, SUP. BN., 1st FSSG						1
MMFAF5	MFU, SUP. BN., 2nd FSSG						1
MMFAG4	MFU, SUP. BN., 3rd FSSG						1
MMFAG2	MFU, BRIGADE SERVSUP GROUP, FIRST MAR BRIGADE						1
					SUBTOTAL		184
					*FAADCs		8
					TOTAL		192

*Fleet Accounting and Disbursing Centers, LANT/PAC (Functional Analysis of increased documentation activity)

DLR ADVISORY COMMITTEE MEMBERS

MEMBER	CODE
VADM T. J. BIGLEY (CHAIRMAN)	OPNAV (OP-04)
RADM J. A. WINNEFELD	OPNAV (OP-01C)
RADM S. A. WHITE	OPNAV (OP-02B)
CAPT H. C. MUSTIN	OPNAV (OP-321)
RADM A. A. GIORDANO	OPNAV (OP-41)
RADM C. J. KEMPF	OPNAV (OP-51)
RADM E. P. TRAVERS	OPNAV (OP-92)
RADM L. S. KOLLMORGEN	OPNAV (OP-96)
RADM C. B. SHELLMAN	NAVMAT (MAT-04)
MR. V. S. WALLS	HQMC (MC-L)
RADM R. F. MURPHY, JR.	CINCLANTFLT (N4)
RADM C. B. SMITH	CINCPACFLT (41)
RADM T. A. KAMM	CNAVRES (OP-09RB)
MR. D. B. KASSING	CENTER FOR NAVAL ANALYSIS

APPENDIX R

STUDY GROUP PERSONNEL

CNO PROJECT OFFICER AND DIRECTOR, DLR STUDY GROUP

MR.	R. J. MOLONEY	CHNAVMAT (MAT 01B)

DEPUTY DIRECTOR, DLR STUDY GROUP

CAPT	L. E. KRUKIN, SC, USN	C. O. NAVREGFINCEN, WASHINGTON, DC.

FULL TIME MEMBERS

CAPT	R. L. BRUNSON, SC, USN	SUPPLY OFFICER, NAS ALAMEDA, CA.
CAPT	J. SHULICK, JR., USN	NALC, PAX RIVER, MD (CODE 220)
CAPT	T. F. WENTWORTH, USN	OPNAV (OP-922B)
CAPT	A. E. WESELESKEY, USN	OPNAV (OP-122)
CDR	J. D. MEIER, SC, USN	CINCLANTFLT (CODE N-411)
CDR	J. P. MONSON, SC, USN	CHNAVMAT (MAT-04C)
CDR	F. E. PERRILL, SC, USN	NAVSUPSYSCOM HQ (SUP-044)
CDR	O. B. SMITH, SC, USN	NAVSUPSYSCOM HQ (SUP-044)
LTCOL	R. J. WINGLASS, USMC	HQMC (CODE LPF)
LCDR	F. X. POOLE, SC, USN	SHIPS PARTS CONTROL CENTER (CODE 300B) MECHANICSBURG, PA.
MRS.	D. M. ANDERSON	KELLY GIRL (TYPIST)
MR.	E. R. BROWN	NAVCOMPT (NCBG-11)
MR.	O. W. HAWK	SHIPS PARTS CONTROL CENTER (CODE 723A) MECHANICSBURG, PA.
MR.	G. A. KLESCHICK	AVIATION SUPPLY OFFICE (CODE MFB1-A) PHILADELPHIA, PA.
MR.	C. L. MARRIOTT	NAVSUPSYSCOM HQ (SUP-013)

PART TIME MEMBERS

COL	R. N. RACKHAM, USMC	HQMC (CODE ASL-31)
CDR	A. L. CAHILL, USN	OPNAV (OP-40483)
CDR	L. G. COX, JR., USN	OPNAV (OP-514)
CDR	J. M. LACEY, USN	CNAVRES (CODE 1213)
LTCOL	R. J. SHIGLEY, USMC	HQMC (CODE LM-1)
MAJ	H. L. HONBARRIER, USMC	HQMC (CODE FDB)
MR.	J. BOLAND	NARF, ALAMEDA, CA. (CODE 220)
MR.	S. BORRIS	NAVSEASYSCOM HQ (SEA 04422)
MR.	J. BRINGAS	NARF, NORTH ISLAND, CA. (CODE 220)
MR.	A. CHODOS	NARF, NORTH ISLAND, CA. (CODE 530)
MR.	R. D. LEWIS	SSPO, WASHINGTON, DC. (CODE 1321)
MR.	E. P. MARZORINI	NARF, ALAMEDA, CA. (CODE 530)
MS.	S. M. MORGAN	NALC, PAX RIVER, MD (CODE 223)
MS.	J. PAGE	NAVSUPSYSCOM HQ (SUP-0443B)
MR.	D. PALENSKI	CHNAVMAT (MAT-0112)
MR.	C. SANDERS	NAVELEXSYSCOM HQ (ELEX-460A)
MR.	A. WILSON	HQMC (CODE LM-1)
MRS.	M. H. BROWN	KELLY GIRL (TYPIST)

CNO STUDY MONITOR

LCDR	G. I. DOWNER, SC, USN	CNO (OP-064)